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ANNUAL REPORT OF HEALTH DEPARTMENT FOR 1961

PRESENTED BY

Dr. B. V. SUNDARABABU, M.B.B.S., D.P.H. (CAL.)
HEALTH OFFICER, CORPORATION OF MADRAS.

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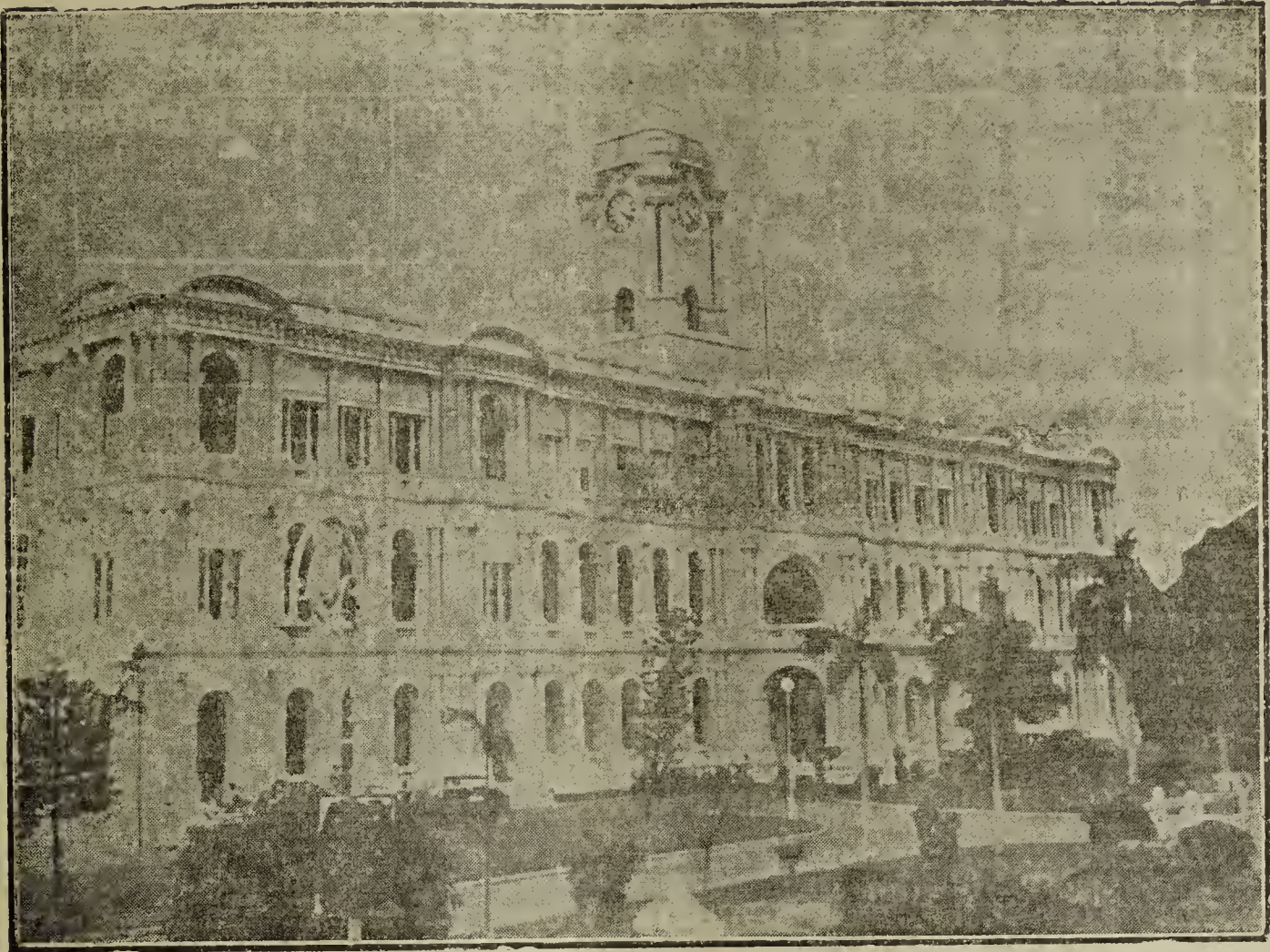
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ANNUAL REPORT OF THE HEALTH OFFICER FOR 1961

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FORWARDED

With the growing demand from the public for Social Services, more particularly Health Service, the need for expanding and improving the health activities of the Corporation has become urgent. In view of the above trend the health administration of the City has been improved to the extent possible by introducing new schemes such as Milk Distribution Scheme, provision of Community centres, expanding and modernizing the Infectious Diseases Hospital, etc., during the year. The report on the health administration of the City during 1961 will show an all-round improvement in the Public Health Services maintained by the Corporation.

The noteworthy feature was that the City was free from the epidemic 'Cholera' during the year. But small-pox prevailed during the year resulting in admission of 3,666 cases in the I.D. Hospital. Its spread was arrested by taking prompt preventive measures.

During the year, the infant mortality showed a decline, viz., 115.79 per 1,000 live births against 121.60 registered during 1960. Total number of deaths of infants under the age of one year recorded was only 8,365 against 8,832 during 1960.

The Maternal Mortality in the City also showed a decline during the year, recording 83 deaths against 119 for the previous year, and this was mainly due to facilities provided by the Corporation Child Welfare Scheme to mothers during ante-natal and post-natal periods and confinement.

The percentage of malaria cases treated in Hospitals and Dispensaries was 0.008 per cent against 0.009 of the previous year.

With an additional dispensary opened at Kosapet on 1-9-61 the Corporation maintained 48 dispensaries and 8 special Clinics during the year with record daily attendance for treatment.

The Infectious Diseases Hospital at Tondiarpet has been improved considerably and the most important part of improvement is the construction of an up-to-date virus-cum-Bacteriological Laboratory. The W.H.O. has recognised and approved the hospital for further research on Small-pox and sanctioned funds besides granting a sum of Rs. 30,000 towards the purchase of necessary equipment for the virus section of the new laboratory. Proposals are also under consideration of Government for construction of a Lecture and demonstration Hall at this hospital for students of various Medical Colleges.

Special stress is laid on physical health of children studying in Corporation Schools and medical inspections are followed up.

The four Laboratories maintained under Health administration continued to be popular especially the Public Health Laboratory.

During the year, a few new specimens were acquired and added to the list of livestock in the Corporation Zoological Gardens. The Zoo has attracted not only the children from schools but also visitors from various places.

With a view to meet the growing needs of the citizens, an additional Child Welfare Centre with Maternity Wards has been opened in the City during the year. Out of 72,237 births recorded in the City, 27,581 labour cases came under the care and observation of the scheme out of which 15,505 births were conducted in the wards under the supervision of the Lady Superintendent.

The Corporation Midday Meals Scheme which showed the way to certain other States, Local Bodies and Institutions in the country for the provision of such facilities continued to serve the poor school going children of the City. Meals were supplied free in 310 schools to 33,953 children every day.

The 32 father and 44 mother Family Planning Information Centres in the City continued to be popular.

Public co-operation is necessary in carrying out various preventive measures, e.g., Vaccination against Small-pox and Inoculation against Cholera or Typhoid and also in maintaining the City clean and sanitary. The Health Officer and his staff spared no pains to maintain a fairly high standard of health in the City during the year 1961.

R. BALASUBRAMANIAN, I.A.S.,

*Commissioner,
Corporation of Madras.*

MADRAS,
15-6-1962.

CORPORATION OF MADRAS

HEALTH DEPARTMENT

ANNUAL REPORT FOR 1961

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INTRODUCTION

One of the most essential parts of the Municipal Service is the Health Service. Foremost priority is given to this part of civic administration in the City to make it clean, healthy and free from diseases. To achieve these ends, the field of service is made as wide as possible by rendering free medical aid-by improving food, environmental and industrial sanitation, by provision of dispensaries, Hospitals, Beggar Homes, Health and Recreation Centres, Maternity and Child Welfare Centres, Community Centres and better laboratories, distribution of protected water, etc. Besides these, the administration has not forgotten to educate and rouse the Civic consciousness of the Public.

I take this opportunity to present my SIXTH ANNUAL REPORT on the Health Administration of the City during the year 1961 mentioning here a few salient features with facts and figures for the information of the Public.

SCHEMES :

The year is marked with introduction of two new schemes (1) Free Milk Supply Scheme to Elementary School Children and (2) Provision of a Community Centre besides conducting an intensive vaccination drive in connection with Small-pox Eradication Programme.

(1) *Free Milk Supply Scheme :*

The milk powder kindly donated by the Catholic Relief Services is being converted into reconstituted milk and distributed to the undernourished children attending the Corporation Schools every day besides Midday Meals.

(2) *Community Centre :*

To facilitate the citizens to conduct marriages and other religious or social functions at a nominal rental charge, a Community Centre was opened with all necessary amenities at St. Xavier Street, Seven Wells, 11th Division.

POPULATION :

The population of the City as per the Census figure of 1961 was 17,25,216. The mid-year population as estimated during 1961 by the Director-General of Health Services was 17,36,000. The population calculated by the method of natural increase, i.e. excess of births over deaths was 17,37,703.

BIRTHS :

The total number of births registered during the year was 72,237 with an increased birth rate of 41.61 per mille as against 72,610 and 32.8 per mille respectively recorded during the year 1960.

DEATHS :

The total number of deaths registered during the year excluding still-births was 32,494 and the rate was 18.71 per mille as against 33,729 and 15.2 per mille of the previous year.

INFANTILE MORTALITY :

The number of deaths of infants under the age of one year recorded during the year was 8,365 with a death rate of 115.79 per 1,000 live births registered, against 8,832 and 121.6 during 1960.

MATERNAL MORTALITY :

The maternal deaths and mortality rate during the year decreased to 83 and 2.55 from 119 and 3.5 of the last year. This decline is mainly due to modern methods of treatment adopted in the Child Welfare and Maternity Centres and provision of timely help rendered to the mothers during the ante-natal and post-natal period and also care taken at the time of confinement.

ENDEMIC AND EPIDEMIC DISEASES :

Again the City remained free from cholera during the year under review as in 1960. But there were attacks of Small-pox numbering 3,737 as against 2,248 during 1960.

VACCINATION AND INOCULATION :

In the year 1961, 7,90,943 vaccinations against Small-pox 4,666 preventive inoculations against Cholera and 22,905 against Typhoid were performed. Vaccination and Inoculation certificates were issued to 9,081 persons for International travel.

ANTI-MOSQUITO OPERATIONS :

Systematic inspection of all the mosquito breeding places in the City was made and control measures taken by the special staff posted for the purpose. Besides the permanent staff, an additional staff of 100 thozhilalies were also employed during the year to destroy the increased density of culicine mosquitoes after the rains. In addition to this, the staff also attended to D.D.T. spraying in private premises and compounds and deflying of private markets by collecting necessary charges amounting to Rs. 1,615 during the year as against Rs. 1,540 in the previous year.

NATIONAL MALARIA ERADICATION PROGRAMME :

The National Malaria Eradication Programme which was in operation from the year 1958 in the City was intensified during the year 1961. During the year 139 cases were clinically diagnosed as malaria in the various Corporation dispensaries out of the total cases of 17,46,163 examined, thus giving a decline in percentage from 0.009 to 0.008. The anti-larval measures and surveillance programme, introduced in 1960 continued to yield good results as all the fever cases were detected by house to house enquiries and treatment given with aminoquinilines.

MEDICAL RELIEF :

Medical relief has been provided to the citizens through Hospitals, Dispensaries, Child Welfare and Maternity Centres, and the School going children are subject to medical examination periodically and received necessary treatment. During the year, one Infectious Diseases Hospital, 48 General Dispensaries, 8 Special Clinics and 45 Child Welfare and Maternity Centres continued to serve the Public.

MIDDAY MEAL SCHEME :

This Scheme which was introduced in the year 1925 was extended to all the Corporation Schools in the City and the poor under-nourished children attending the schools are fed with a meal at midday. The total number of

midday meals supplied to 310 Corporation Schools during the year was 33,953 per day.

LABORATORY SERVICES :

Under ' Health Services ' 4 laboratories (Public Health Laboratory, Food Analysis Laboratory, Water Analysis Laboratory and Malaria Laboratory) continued to be maintained for the benefit of the citizens. The popularity of the Public Health Laboratory at Ripon Buildings continued to increase during the year and a sum of Rs. 36,419-50 nP. was collected towards charges for analysing specimens of blood, urine, motion, etc., sent by private Practitioners in the City as against Rs. 31,103-25 nP. during 1960. The Food Analyst Laboratory which is also behind the Ripon Buildings continued to help in the matter of enforcing the provisions of the prevention of Food Adulteration Act. and the Rules against the vendors of adulterated Food Stuffs.

ASHOK VIHAR :

It is the only Socio-medical Urban Health Centre in the City serving as a teaching and training Centre for personnel in the Medical, Nursing and Social Fields besides providing health and recreation facilities to the poor families and Slum dwellers. The Centre is equipped with all facilities to render periodic health check up, Immunizations, Recreation, Handicrafts, Creche, Maternity, Family Planning and Dispensary Service.

SLAUGHTER HOUSES :

In order to supply meat under hygienic condition and to prevent transmission of disease to human beings the Corporation continued the proper maintenance of the slaughter houses in the City. There are separate slaughter houses maintained in the City for Sheep, Cattle and Pigs where 5,36,780 Sheep, 26,822 Cattle and 4,313 Pigs were slaughtered during the year.

With a view to reduce the cost of meat by utilising all parts of the slaughtered animals such as blood, bowels, bowel contents, etc., which were being wasted, efforts have been taken to modernize the slaughter house in the City with the aid of the loan from Government.

LETHAL CHAMBER :

To prevent the spread of rabies and to control the nuisance due to stray dogs in the City, the Corporation continued to maintain the lethal chamber at Basin Bridge Road during the year. The total number of dogs and bitches destroyed during the year was 22,441 and 26,118 respectively.

FAMILY PLANNING :

During the year under review the Family Planning Scheme operating in the City went ahead by supplying sheaths and contraceptives free of charge to fathers and mothers respectively through Information Centres. The Scheme gained popularity and the number of fathers operated for Vasectomy was 716 and of the mothers for Salpingectomy was 602 during the year. The father and mother information centres in the City numbered 32 and 44 respectively and 13,117 fathers and 64,283 mothers were instructed in the year 1961.

SPECIAL HOME :

As a reception home to the diseased, infirm and disabled beggars in the City, the Special Home continued to function during the year under review. The beggars roaming in the Public roads are committed to the Home under the provisions of the Madras City Police Act for detention where they are provided with food, clothing, medical and other facilities. The total number of inmates in the Home during the year ranged from 274 to 212.

ZOOLOGICAL GARDENS :

The Corporation Zoological Gardens continued to provide utmost pleasure and interest to a great number of visitors including school going children. During the year, a number of specimens such as Chimpanzees, Californian Sea Lions, Black and White Swans, Pea Fowls were added. The total livestock maintained during the year was 628. Wild Life Day was celebrated as usual in the first week of August 1961.

CONCLUSION :

It has to be remembered always that if one part of our body suffers, the whole body suffers ; in the same way, if one part of the locality or society suffers, or keeps its neighbourhood dirty and unhealthy, the society as a whole feels its effects in one way or another especially in the spread of malaria and contagious diseases like cholera and small-pox. But, if every one observes the rules of health, sanitation and social environment, not only the problem of the City will be substantively solved and lakhs of rupees saved but also the inhabitants in every part of the City, will be living in more healthy surroundings and at a less cost to themselves and to the administration. Bearing all these in mind, the complete machinery of health administration has been putting all its efforts to maintain the health and cleanliness of the City, which is experiencing day to day expansion with new colonies and industries, and also trying to educate the citizens on health features and rouse their Civic Consciousness and Co-operation.

On this occasion, I like to express my sincere and heartfelt thanks to the Commissioner for his valuable guidance, timely help and co-operation extended to me in maintaining the standard of public health in the City during the year. I also wish to offer my thanks to all my Assistant Officers and Members of the Staff and also the Heads of other Departments for their assistance and co-operation in maintaining a high standard of health administration during the year.

MADRAS, }
18th May 1962. }

B. V. SUNDARA BABU,
Health Officer.

1. STATISTICAL SUMMARY

1. Area	... 31,90,09,920 acres (or) 49.84 Sq. miles
2. Population as per the Census of 1961	... 17,25,216
3. Population estimated for the Mid-Year 1961	... 17,36,000
4. Population calculated on the natural increase method (excess of births over deaths)	... 17,37,703
5. Average density per acre	... 53.04
6. Births excluding Still Births	... 72,237
7. Deaths excluding Still Births	... 32,494
8. Still Births	... 2,128
9. Birth Rate as per estimated mid-year population	... 41.61
10. Birth Rate as per population calculated on the natural increase method (excess births over deaths)	... 41.57
11. Death Rate as per estimated mid-year population	... 18.71
12. Death Rate as per population calculated on natural increase method (excess of births over deaths)	... 18.69
13. Natural increase	... 39,743
14. Rate of natural increase per 1,000 of estimated popu- lation	... 22.89
15. Still births per 1,000 births (Live and Still)	... 28.61
16. Infant Deaths	... 8,365
17. Infant Mortality Rate	... 115.79
18. Maternal Deaths	... 83
19. Maternal Mortality Rate	... 2.55
20. Total No. of Small-pox cases reported	... 3,737
21. Total No. of Deaths due to Small-pox	... 904
22. Total No. of cases of Cholera reported	... Nil
23. Total No. of deaths due to Cholera	... Nil
24. Total No. of Primary Vaccinations done	... 64,406
25. Total No. of Re-Vaccinations done	... 7,26,537

II. METEOROLOGY

The Meteorological condition of the Madras City recorded during the year 1961 is appended to the Statistical Supplement (Statement No. 1).

Rainfall.—The total rainfall recorded at the Nungambakkam Observatory was 49.1 inches as against 66.72 inches for the year 1960.

The following statement shows the rainfall recorded from 1952 to 1961 monthwise :—

MADRAS NUNGAMBAKKAM RAINFALL (IN INCHES)

Months	1952.	1953.	1954.	1955.	1956.	1957.	1958.	1959.	1960.	1961.
January ...	0.05	0.41	1.06	3.71	2.13	0.00	0.39	0.00	1.70	2.7
February ...	1.14	0.16	0.00	1.10	0.00	0.20	0.01	0.87	0.00	0.5
March ...	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Tr.	0.0
April ...	0.00	0.55	0.00	1.15	1.91	0.00	0.09	0.69	Tr.	0.0
May ...	18.54	0.00	0.15	7.13	0.90	0.40	2.78	0.49	0.32	0.8
June ...	1.00	0.37	0.14	1.89	3.59	1.39	1.79	2.01	1.77	3.9
July ...	1.63	3.38	9.01	3.73	4.47	5.59	1.77	2.60	2.51	8.5
August ...	3.95	2.62	6.08	9.71	6.36	5.48	7.37	1.98	1.28	10.1
September ...	1.17	5.03	3.63	1.93	8.37	3.59	1.62	3.34	10.82	7.3
October ...	9.60	21.81	11.33	8.99	6.76	8.59	16.43	13.51	9.19	8.0
November ...	1.30	4.92	2.33	7.56	7.22	16.63	18.25	11.98	33.45	6.9
December ...	9.92	1.30	10.62	4.74	3.72	0.11	3.61	1.42	5.68	0.4
Yearly Total ...	48.30	40.55	44.35	51.64	45.43	41.98	54.11	37.99	66.72	49.1

III. VITAL STATISTICS

1. Population

The City population as per Census of 1961 (Approximated) ...	17,25,216
Mid-year population of 1961 as estimated by the Director-General of Health Services ...	17,36,000
The population calculated on the natural increase method (excess of births over deaths) ...	17,37,703

2. Births

	1961 as against 1960	
Total births registered during the year ...	72,237	72,610
The birth rate calculated per 1,000 of the mid-year estimated population ...	41.61	32.88
The birth rate when calculated by natural increase method ...	41.57	42.76
The total still-births during the year ...	2,128	2,242
The rate of still-births per 1,000 births (live or still).	28.61	29.95

The statement shows the monthwise incidence of births during the year 1961 :—

Quarter.	Months.	No. of births.	Quarterly total.
First	January	3,653	14,475
	February	5,429	
	March	5,393	
Second	April	5,975	17,693
	May	5,463	
	June	6,255	
Third	July	5,896	17,194
	August	5,878	
	September	5,420	
Fourth	October	6,029	22,875
	November	7,059	
	December	9,787	
Total		72,237	72,237

The statement gives the details of births among the principal communities in the City :

Communities	No. of births registered		Total
	Males	Females	
Aliens	11	8	19
Anglo-Indians	75	69	144
Indian Christians	1,611	1,588	3,199
Hindus	32,295	31,029	63,324
Muslims	2,804	2,725	5,529
Others	11	11	22
Total	36,807	35,430	72,237

The statement of live births by age of the mother and order of confinement at live births during 1961 is furnished in Statistical Supplement—Statement No. 14.

3. Deaths

	1961 as against 1960	
Total No. of deaths registered (excluding still-births).	32,494	33,729
Death rate as per estimated mid-year population ...	18.71	15.27
Death rate as per population of natural increase method (excess of births over deaths) ...	18.69	19.86
Natural increase of deaths ...	39,743	38,881
Net increase of deaths during the year ...	1,235	214

A statement of births and deaths, recorded in the City since 1961 is furnished below with special reference to the natural increase :—

Year.	Births.	Deaths.	Natural increase (+) or decrease (—)	
1952	62,921	43,207	+	19,714
1953	54,277	43,753	+	10,524
1954	59,256	33,181	+	26,075
1955	66,449	34,264	+	32,185
1956	67,476	33,927	+	33,549
1957	69,197	36,783	+	32,414
1958	71,880	36,888	+	35,000
1959	70,155	33,515	+	36,640
1960	72,610	33,729	+	38,881
1961	72,237	32,494	+	39,743

The maximum of deaths were registered during the last quarter of the year, as can be seen from the monthwar incidence, tabulated hereunder :—

Quarter	Months	No. of deaths	Quarterly total
First	January ... February ... March ...	2,540 2,885 2,831	} 8,256
Second	April ... May ... June ...	2,741 2,755 2,422	
Third	July ... August ... September ...	2,680 2,586 2,595	
Fourth	October ... November ... December ...	2,425 2,543 3,491	} 8,459
Total		32,494	32,494

The number of deaths registered in each division with the corresponding death rate is furnished in the Statistical Supplement No. 5.

Deaths amongst the principal communities

The occurrence of deaths community-wise is as follows :—

Principal Communities.	Males.	Females.	Total
Aliens	4	...	4
Anglo-Indians	55	61	116
Indian Christians	754	745	1,499
Hindus	14,081	13,639	27,720
Muslims	1,645	1,488	3,133
Others	14	8	22
Total	16,553	15,941	32,494

The number of births and deaths registered with respective rates among the principal communities in the City during the year, as compared with the previous years, is furnished in the Statistical Supplement—Statement No. 10.

The statement furnished below gives the age and sex-wise distribution of total deaths :—

Age-group.	Males	Females	Total	Percent- age rate.
Under 1 year	4,347	4,018	8,365	26.00
1 to 4 years	3,822	4,265	8,087	25.00
5 to 9 years	682	672	1,354	4.00
10 to 14 years	215	232	447	1.00
15 to 19 years	242	276	518	2.00
20 to 29 years	803	953	1,756	5.00
30 to 39 years	822	819	1,641	5.00
40 to 49 years	1,113	725	1,838	6.00
50 to 59 years	1,430	941	2,371	7.00
60 years and above	3,077	3,040	6,117	19.00
Total	16,553	15,941	32,494	100.00

Principal Causes of Death

		1961 as against 1960	
Deaths due to Small-pox during the year	...	904	521
Deaths due to Cholera during the year	...	Nil	Nil
Deaths due to respiratory diseases	...	6,927	7,988

The following statement shows the figures under the principal causes of death :—

Causes of death		Males	Females	Total	Rate per 1,000 esti- mated mid-year population
Plague	...	...	...	...	...
Cholera	...	...	...	...	...
Small-pox	...	434	470	904	0.52
Measles	...	3	4	7	0.00
Malaria	...	5	1	6	0.00
Enteric Fever	...	128	81	209	0.12
Other Fevers	...	986	918	1,904	1.10
Dysentery	...	1,285	1,409	2,694	1.55
Diarrhoea	...	893	919	1,812	1.04
Tuberculosis (including T.B. of lungs)	...	446	283	729	0.42
Other respiratory diseases		3,461	3,466	6,927	3.99
Deaths due to child birth.	...	...	83	83	0.05
All other causes	...	8,912	8,307	17,219	9.92
Total	...	16,553	15,941	32,494	18.71

Infant Mortality

		1961 as against 1960	
Infant mortality rate for the year	...	115.79	121.60

The statement below shows the number of deaths under different age-groups under 1 year :—

Age-groups	No. of infant deaths.
Under 7 days	2,162
Above 7 days and under 1 month	1,039
Above 1 month and under 6 months	2,488
Above 6 months and under 1 year	2,676
Total	8,365

Statement showing the infant mortality rate recorded in the City since 1946 are :—

	Infant mortality rate
1946-50	176.26
1951-55	157.98
1956-60	135.04
1960	121.60
1961	115.79

The undermentioned statement shows the principal causes of infant deaths :—

S. No.	Cause of death	No. of deaths	Age-disease specific death rate
1	Cholera	...	...
2	Small-pox	136	1.63
3	Measles	3	0.04
4	Diphtheria	14	0.17
5	Enteric fevers	6	0.07
6	Malaria	...	...
7	Other fevers	390	4.65
8	Dysentery	452	5.40
9	Darrhoea	697	8.33
10	Infantile debility, malnutrition, including premature births	2,323	26.78
11	Diseases of the respiratory system	2,271	28.15
12	Convulsions	55	0.66
13	Other diseases	2,018	24.12
	Total	8,365	100.00

Maternal Mortality

1961 as against 1960

Deaths among the mothers as a result of child bearing	...	83	119
Maternal mortality rate	...	2.55	1.58

The maternal mortality rates for the last one decade is furnished hereunder :—

Year.		Maternal deaths.	Maternal mortality rate.
1952	...	155	2.78
1953	...	155	2.78
1954	...	150	2.47
1955	...	156	2.34
1956	...	153	2.18
1957	...	150	2.08
1958	...	145	1.94
1959	...	140	1.93
1960	...	119	1.58
1961	...	83	2.55

EPIDEMIC AND ENDEMIC DISEASES

1. Small-pox

		1961 as against 1960	
Number of attacks of Small-pox during the year	...	3,737	2,248
Deaths during the year	...	904	521

The incidence of Small-pox showed some increase during the year but it was arrested by taking prompt and rigid preventive measures by deputing Special Sanitary Inspectors and Assistant Vaccinators to the divisions where more number of cases were reported. Re-vaccinations were done to all the persons working in licensable trades, slum dwellers and the residents of hutting grounds in those particular divisions. All preventive measures were taken by the Public Health Staff to prevent the further spread of this disease.

Besides, under the orders of the Government and the Council of the Corporation of Madras, Small-pox Eradication Programme was launched in the City during the period 23-3-61 to 30-9-61 and intensive re-vaccination were done in the City during the period. Nearly 300 Assistant Vaccinators were employed under the Scheme. The immediate effect of this programme has been very encouraging in that most of the cases now reported are from recently vaccinated cases of very mild variety. In spite of lack of co-operation from the public, the staff were able to cover nearly 11½ lakhs of the City population during the said period. Mopping up work was subsequently taken by which those who were left unprotected were being covered up.

The number of attacks and deaths from Small-pox reported in the City during 1961 are as follows :—

Months		City		Mofussil	
		Attacks	Deaths	Attacks	Deaths
January	...	300	64	29	4
February	...	428	97	22	4
March	...	676	137	39	9
April	...	623	180	19	2
May	...	394	108	9	2
June	...	353	80	8	1
July	...	315	70	38	4
August	...	202	50	6	...
September	...	141	31	7	3
October	...	97	20	6	3
November	...	52	7	3	...
December	...	156	28	2	...
Total		3,737	872	186	32

The following statement shows the incidence of Small-pox and the vaccinations performed month-wise :—

Months	Attacks	Deaths	Primary and Secondary Vaccinations	Re-vaccinations
January ...	300	64	5,297	31,289
February ...	428	97	5,836	45,613
March ...	676	137	6,425	62,914
April ...	623	180	6,922	97,199
May ...	394	108	4,733	59,821
June ...	353	80	6,509	82,057
July ...	315	70	6,024	97,229
August ...	202	50	5,890	1,30,122
September ...	141	31	4,597	57,240
October ...	97	20	4,204	19,320
November ...	52	7	3,734	16,862
December ...	156	28	4,235	26,871
Total ...	3,737	872	64,406	7,26,537

2. Cholera

		1961 as against 1960	
The incidence of Cholera during the year	...	Nil	Nil
Deaths due to Cholera during the year	...	Nil	Nil

The City of Madras was free from the incidence of Cholera throughout the year 1961.

Months	City		Mofussil	
	Attacks	Deaths	Attacks	Deaths
January 1961 to December 1961.	Nil	Nil	Nil	Nil

4,666 Cholera inoculations were done during the year 1961 in the City of Madras.

3. Enteric Fever

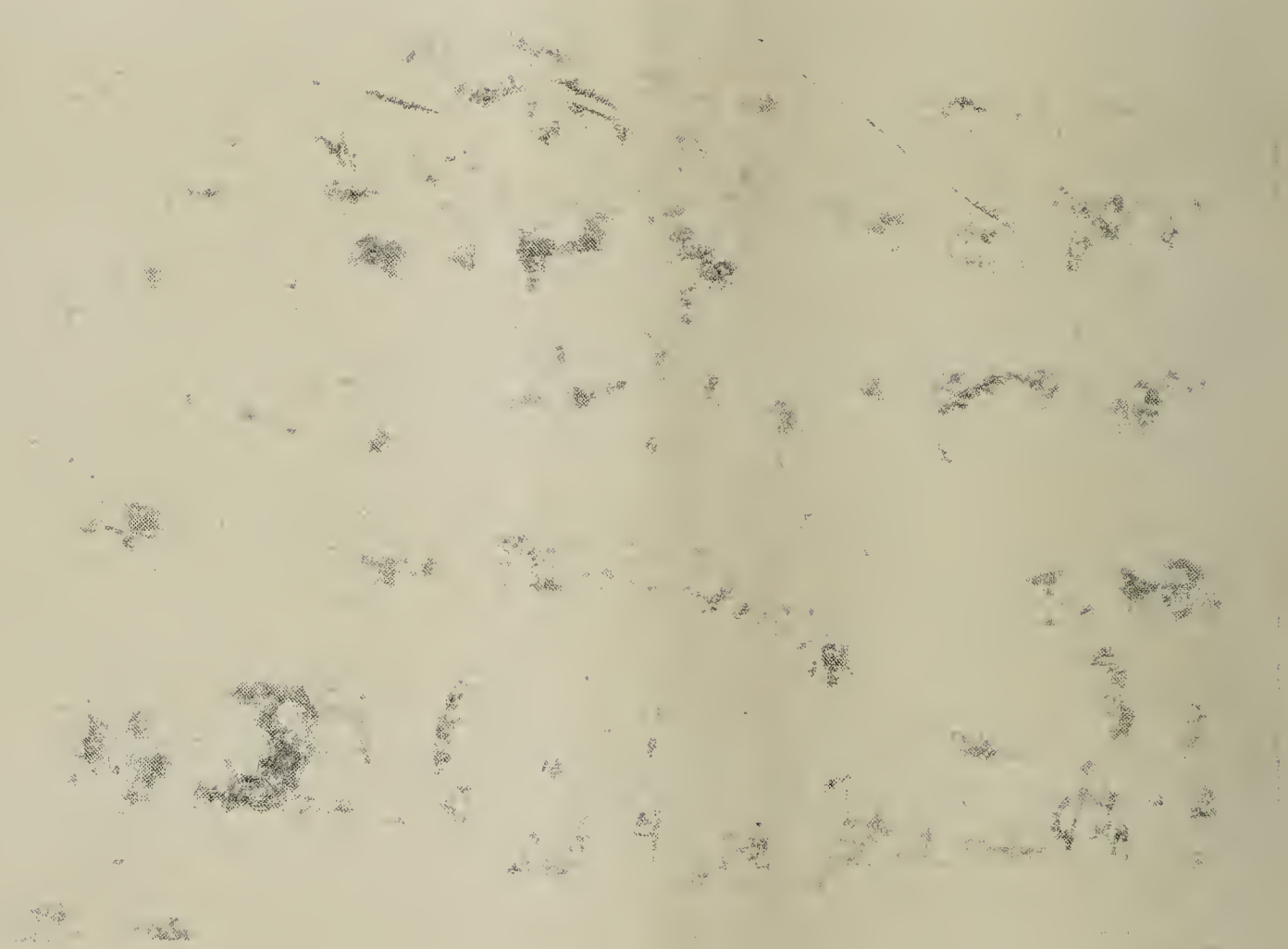
		1961 as against 1960	
Number of attacks during the year	...	2,628	1,400
Number of deaths during the year	...	209	137

22,905 Typhoid inoculations were done during 1961 in the City of Madras.

Small-Pox Eradication Programme.



Small - Pox Eradication Programme in Progress with Propaganda Van and Vaccinators at their job.



Small-Pox Eradication Programme.



Vaccination in Progress in a Slum area (Purely Huts)



Vaccination in Progress in a Slum area.

4. Measles

1961 as against 1960

Number of attacks during the year	...	1,187	1,079
Number of deaths during the year	...	7	2

5. Tuberculosis

Number of deaths during the year	...	729	730
----------------------------------	-----	-----	-----

6. Kala-a-zar

Number of attacks during the year	...	4	7
Number of deaths during the year	...	4	2

7. Chicken-pox

Number of attacks during the year	...	1,388	2,134
Number of deaths during the year	...	2	Nil

8. Malaria

The following statement shows deaths due to Malaria year-wise from the last 10 years :—

Year	Deaths	Death rate per 1,000 of estimated mid-year population.
1952	75	0.050
1953	96	0.060
1954	105	0.070
1955	75	0.050
1956	33	0.020
1957	18	0.010
1958	14	0.070
1959	8	0.003
1960	4	0.001
1961	6	0.003

ANTI-MOSQUITO OPERATIONS

The problem of anti-mosquito measures in Madras City is really a huge one and involves the continuous and systematic control of all the breeding places. The main sources of breeding in the City are the following :—

1. Drains.
2. Rivers—Cooum and Adyar.
3. Buckingham Canal.

4. The Otteri Nullah.
5. The Anti-malaria Drain.
6. Railway Channel.
7. The Sun Theatre Nullah.
8. Cess Pools in the Slums and the unsewered areas.
9. Rain Water Stagnations.

The City is divided into 4 Ranges for the purposes of anti-mosquito measures and a Malaria Supervisor is in-charge of each Range, supervised by the Assistant Health Officer of the concerned Range. This arrangement will be changed from 1-1-1962 and the Senior Entomologist will be in-charge of the entire anti-mosquito measures in the City from that date. The measures will be reorganised and intensified.

The Staff engaged in this work consist of the following :—

Malaria Supervisors	...	5	(one for each of the four Ranges and one for the Central Malaria Stores).
Maistries	...	50	
Main Drain and Malaria thozhilalies	...	313	

Apart from the above, to cope up with the increased work after the rains, and to cover effectively all the breeding places during the season when the density of culicine mosquitoes increase, 100 thozhilalies are usually employed for a period of 4 to 5 months.

The drains were cleaned and applied with larvicide regularly once every week.

All the tanks and ponds in the City were regularly cleaned and kept free from algae and moss.

Whenever complaints of mosquito nuisances were received, these were investigated immediately and the breeding if any noticed within the houses destroyed.

Wells, cisterns, overhead tanks and other similar clear water collections which breed the malaria carrier *A. stephensi* were regularly attended to, and kept free of breeding by the staff under National Malaria Eradication Programme.

Pyrethrum extract and Diazinon were used to supplement the effect of larvicidal oil wherever needed, and for de-flying measures also. Regular de-flying measures were carried out in and around the markets and in dung heaps and other places which act as sources of breeding for flies.

The Corporation has to keep an area of half a mile around the Harbour free from Aedes mosquitoes which transmit yellow fever as per International Sanitary Conventions. For this purpose, special Stegomyia Squads were employed and by constant inspections, and destruction of these mosquitoes, kept the area free of Aedes.

On payment of a fixed nominal fee per 1,000 sq. foot of area D. D. T. residual spray operations were carried out wherever the complainants so desired it, and these consisted of residential houses, Public and Private Institutions, and markets. A total of Rs. 1,615 was collected during the year under this head.

The anti-mosquito measures will be re-organised and intensified from 1962.

NATIONAL MALARIA ERADICATION PROGRAMME. MADRAS CITY

INTRODUCTION

The National Malaria Eradication Programme which was implemented from 1958, was intensively carried out during the year under review. This programme, which was commenced as the National Malaria Control Programme from 1955 in Madras City, was switched over to Eradication Programme during 1958 as per pattern laid down in the All India Programme and the measures intensified. It is a mammoth and at the same time a very urgent programme, since the same has to be completed within a very short time, to avoid the development of resistance in the carrier species.

The carrier species for Malaria in Madras City is Anopheles Stephensi which breeds in wells, cisterns, over-head tanks, etc., mostly intra-domestic. Hence, the control measures in the City area are aimed at eliminating the breeding of the larval and pupal stages in these contained water collections. The periphery of the City is protected by D.D.T. spray carried out annually once. The entire City is under control now.

Side by side with anti-larval measures, surveillance programme is under implementation from 1960, by which all fever cases are detected by house to house enquiries. All these fever cases are initially treated with 4-aminoquinolines and their blood smears examined. Cases of malaria thus detected by the examination of blood smears are all radically treated with 8-aminoquinolines, so that all the reservoirs of infection are completely liquidated.

STAFF

During the year, Thiru. V. Sivasubramania Pillai, Senior Entomologist, continued to be directly in charge of the National Malaria Eradication Programme.

The following are the staff sanctioned for the N.M.E.P. by the Corporation of Madras :—

1. Senior Entomologist	...	1
2. Entomological Assistant	...	1
3. Malaria Supervisors	...	6
4. Laboratory Technicians	...	3
5. Assistant Malaria Supervisors	...	8
6. Upper Division Clerk	...	1
7. Typist	...	1
8. Attenders	...	26
9. Mechanic	...	1
10. Peon	...	1
11. Watchman	...	1
12. Attenders (for 5 months)	...	12
13. Thozhilalies (for 1 year)	...	80
14. Thozhilalies (for 5 months)	...	60

Staff diverted from General Malaria Section :—

1. Malaria Supervisor	...	1
2. Stegomia Overseer	...	1
3. Maistries	...	5
4. Literate thozhilalies	...	2
5. Fish gang thozhilalies	...	8

Surveillance Staff—

1. Superior Field Workers	...	100
2. Surveillance Inspectors	...	25

Evaluation of the Programme. The achievement of the programme is evaluated from the morbidity statistics received from the Hospitals and Dispensaries by the number of malaria cases detected by the Surveillance Staff and by investigations of the effectiveness of the larvicidal operations.

Morbidity Statistics. The reduction in the number of cases clinically diagnosed as malaria continue to show decline year after year. During the year, 139 cases were clinically diagnosed as malaria in the various Corporation Dispensaries, out of a total of 17,46,163 cases, thus giving a percentage of 0.008 as against a percentage of 0.009 during 1960. The table below gives the number of malaria cases treated from the year 1955 in the various Corporation Dispensaries with the percentage.

MORBIDITY STATISTICS

GRAPH SHOWING PERCENTAGE OF MALARIA CASES
TREATED TO TOTAL ADMISSIONS

FROM 1955 TO 1961

MALARIA CASES TREATED

%
0-40
0-35
0-30
0-25
0-20
0-15
0-10
0-05
0

1955

56

57

58

59

60

61

YEARS

0-362

0-16

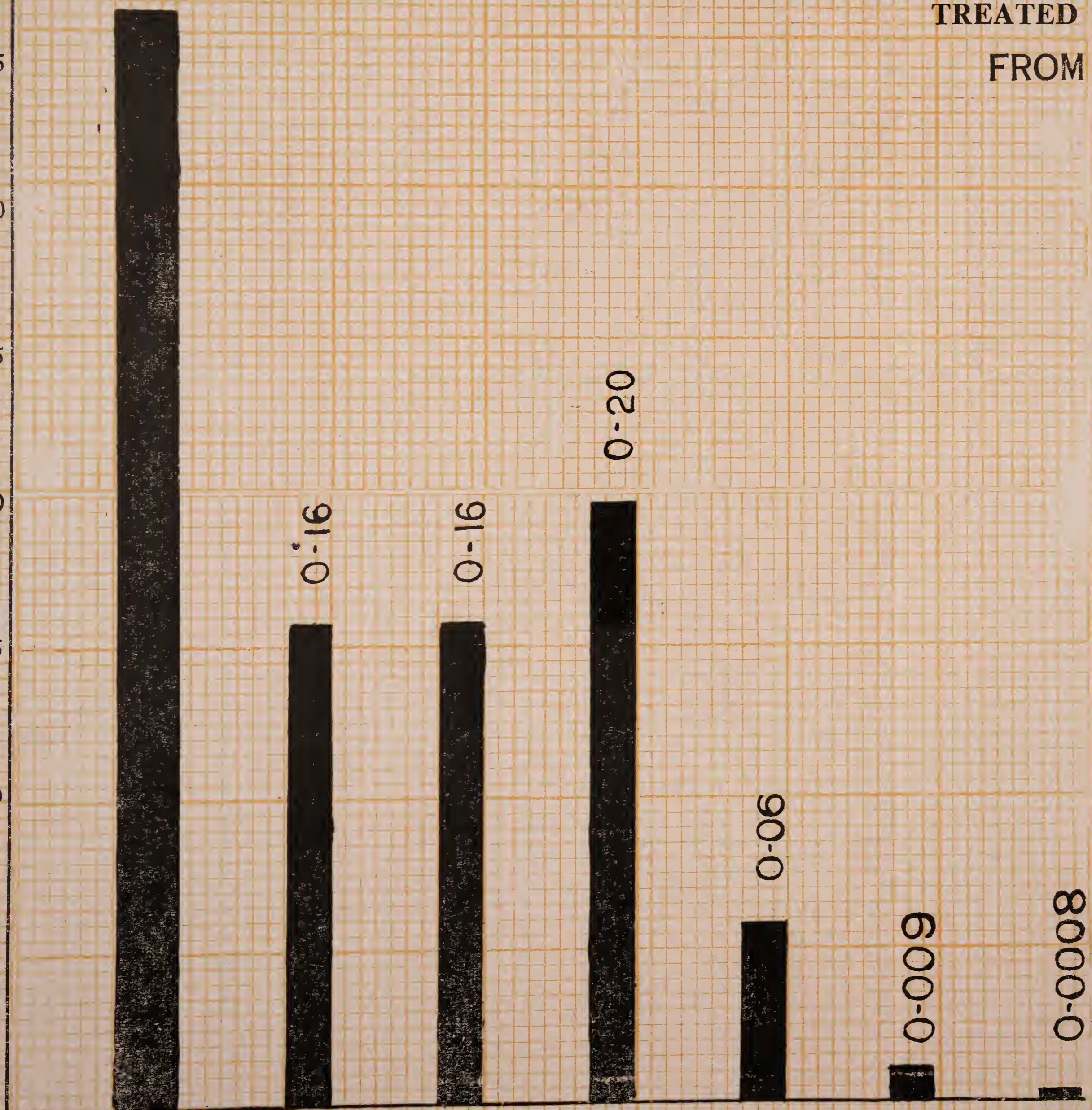
0-16

0-20

0-06

0-009

0-0008



DATE
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YEAR



DATA
2020
18/04/20

Year	No. of Hospitals & Dispensaries.	Total out-patients in Hospitals & dispensaries.	Treatment for malaria cases only.	% of malaria cases treated to total cases of out-patients treated.
1955 ...	40	13,96,381	5,050	0.362
1956 ...	40	16,36,269	2,650	0.16
1957 ...	43	16,75,037	2,821	0.16
1958 ...	45	13,27,883	2,701	0.2
1959 ...	50	15,54,187	1,077	0.06
1960 ...	50	14,65,330	129	0.009
1961 ...	50	17,46,163	139	0.008

The percentage of malaria cases treated in the six Corporation Dispensaries which are situated in the endemic areas of the City are furnished below :—

Dispensaries in Malarious area.	Malaria morbidity rates.						
	1955 %	1956 %	1957 %	1958 %	1959 %	1960 %	1961 %
Moffuskhan dispensary ...	0.01	0.001	0.001	0.00	0.002	0.01	0.03
Mannady dispensary ...	1.40	2.2	0.001	0.07	0.032	0.00	0.00
Mint Dispensary ...	0.55	0.3	0.01	0.07	0.007	0.00	0.00
Muthialpet dispensary ...	0.005	0.48	0.00	0.00	0.000	0.00	0.00
Seven Wells Dispensary ...	Nil	0.57	0.32	0.08	0.06	0.002	0.00
Trevelian Basin dispensary ...	...	0.45	0.18	0.03	0.002	0.00	0.00
Average : ...	0.51	0.35	0.09	0.004	0.047	0.005	0.0005

Graph I gives the annual morbidity rate for all the dispensaries from the year 1955.

Surveillance—

Active Surveillance

The Surveillance programme of the National Malaria Eradication Programme is in force from May 1960, and this has been effectively continued during this year also. This programme envisages the visiting of each and every house in the areas allotted once every fortnight, and by making enquiry

detect all fever cases present. Blood smears of all such fever cases detected are taken and the patients initially treated with the appropriate dosage of 4-aminoquinoline tablets. The blood smears taken are rushed to the Malaria Laboratory, where they are examined, for malaria parasite. All positive cases are immediately treated radically with 8-aminoquinoline tablets and the cases investigated in detail to find out the source of infection and to prevent the spread of the disease.

100 Surveillance Field Workers and 25 Surveillance Inspectors are engaged under the Surveillance programme. During 1961, the Surveillance organisation detected 39,664 fever cases of which 32 were diagnosed as malaria. Of the malaria cases detected, 17 were found to be imported cases and the remaining sporadic cases.

The following table gives the particulars of the fever and malaria cases detected during 1961 through the Surveillance Staff :—

Month.	No. of fever cases detected.	No. of blood smears taken.	No. of Positive for malaria. v. f. mixed			Per-cent.	No of cases treated with 4-aminoquinoline.
January	3,497	3,060	...	...	...	...	2,134
February	3,859	3,543	...	...	...	...	2,174
March	3,806	3,535	4	7	2	0.04	2,360
April	3,097	2,845	3	...	...	0.09	2,199
May	3,323	2,940	2	...	...	0.06	2,630
June	2,928	2,627	...	...	...	...	2,082
July	2,970	2,683	...	...	...	...	2,080
August	2,889	2,783	...	2	...	0.06	2,585
September	3,627	3,229	3	1	...	0.01	2,943
October	3,180	3,044	1	3	...	0.1	2,405
November	3,417	2,911	...	4	...	0.2	2,640
December	3,089	2,755	...	...	...	...	2,489
Total	39,664	35,955	13	17	2	0.008	28,721

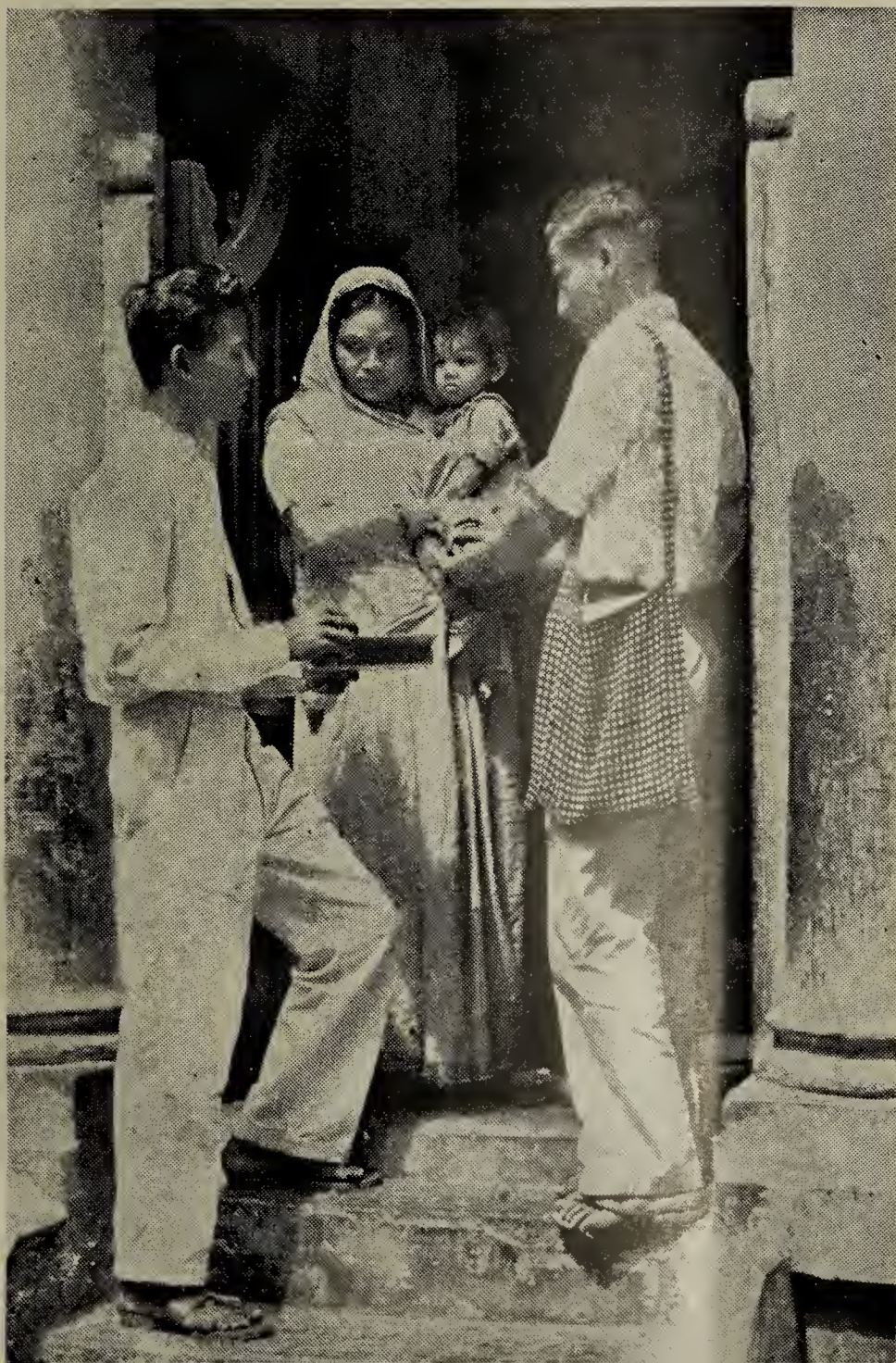
Graph II furnishes the particulars of the monthly fever rate as detected by active surveillance.

Graph III gives the percentage of malaria cases detected month-wise under active surveillance.

Graph IV gives the data of the imported and sporadic malaria cases detected under active and passive surveillance.

The Surveillance Organisation of the National Malaria
Eradication Programme at Work :

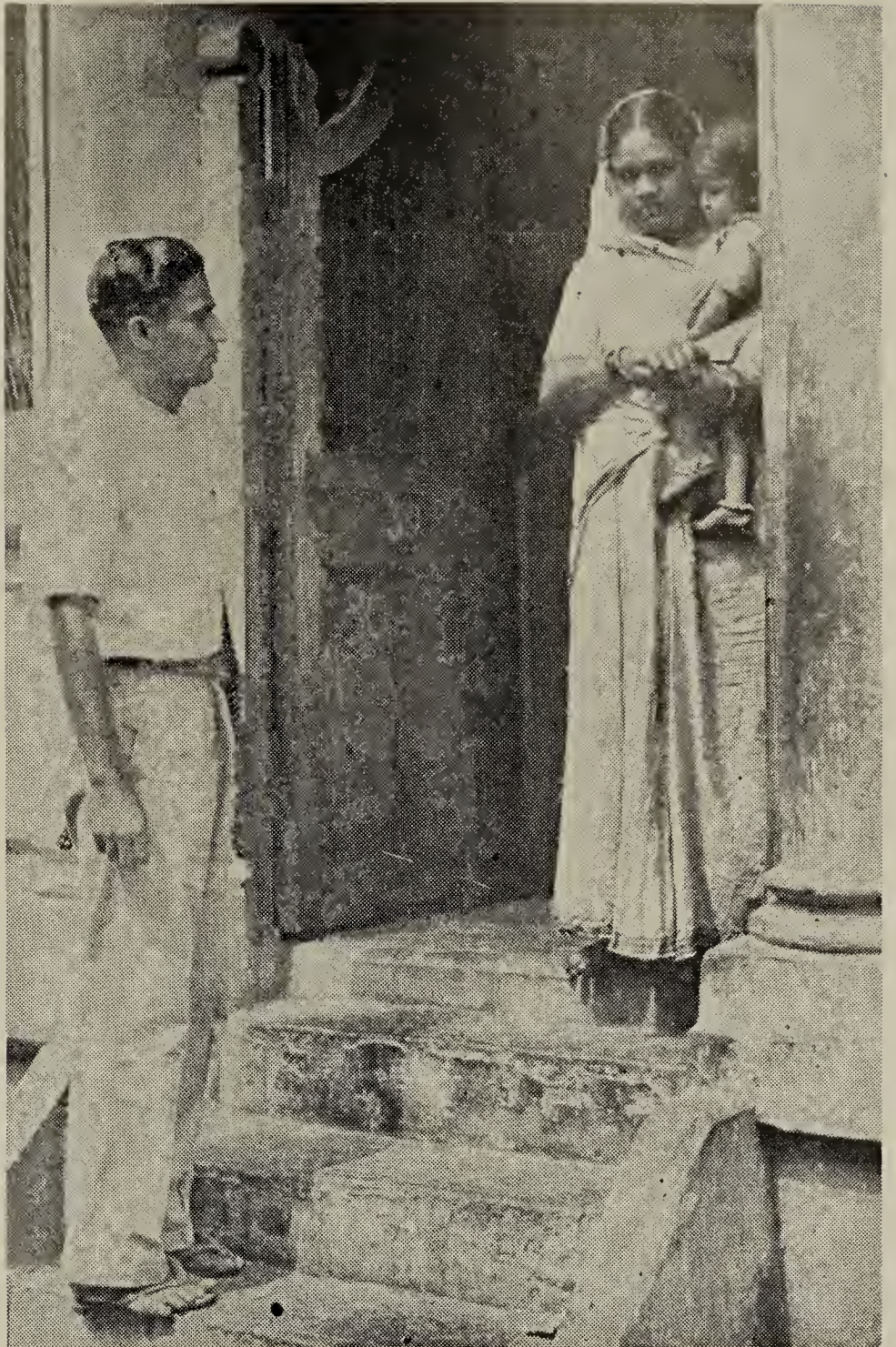
After the house visit, the Field Worker
puts his initials in a chart provided for
the purpose. This facilitates check up
of his work.



The Surveillance Inspector concurrently
checks up the work of the Field Worker.

The Surveillance Organisation of the National Malaria
Eradication Programme at Work :

The Surveillance Field Worker enquires
for fever cases.



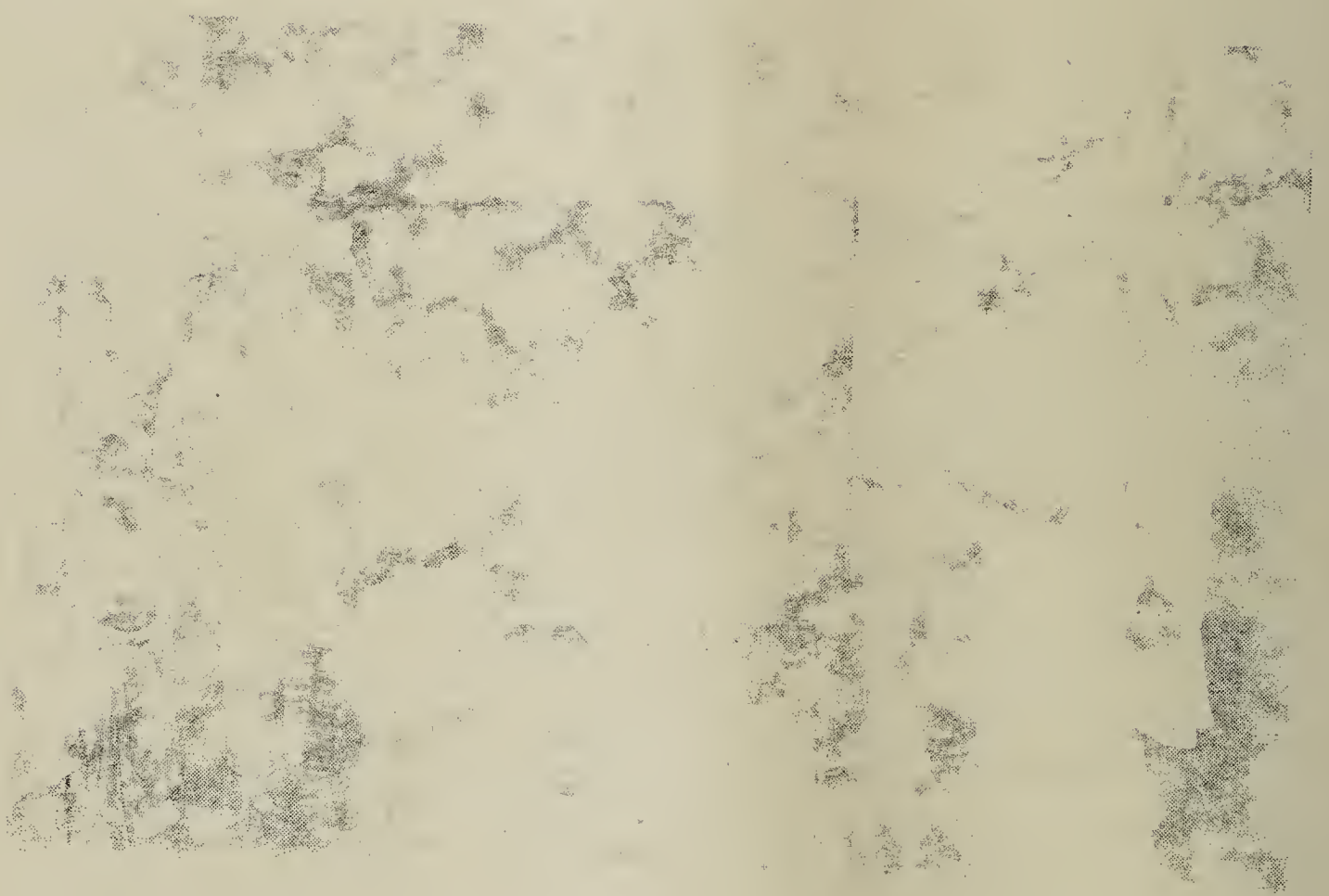
4 - aminoquinoline drugs are administered
for all fever cases.

The Surveillance Organisation of the National Malaria
Eradication Programme at Work :



The Surveillance Field Worker supervised by the Surveillance Inspector, taking
blood smears from a fever case,

14



NATIONAL MALARIA ERADICATION PROGRAMME

ACTIVE SURVEILLANCE

GRAPH SHOWING FEVER RATE PER MILLI OF POPULATION

MONTH WAR FOR 1961

FEVER RATE PER MILLI

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3-0
2-5
2-0
1-5
1-0
0-5
0

JAN.

3-17

FEB.

3-5

MAR.

3-5

APR.

2-81

MAY

3-2

JUNE

2-65

JULY

2-70

AUG.

2-62

SEP.

3-29

OCT.

2-89

NOV.

3-10

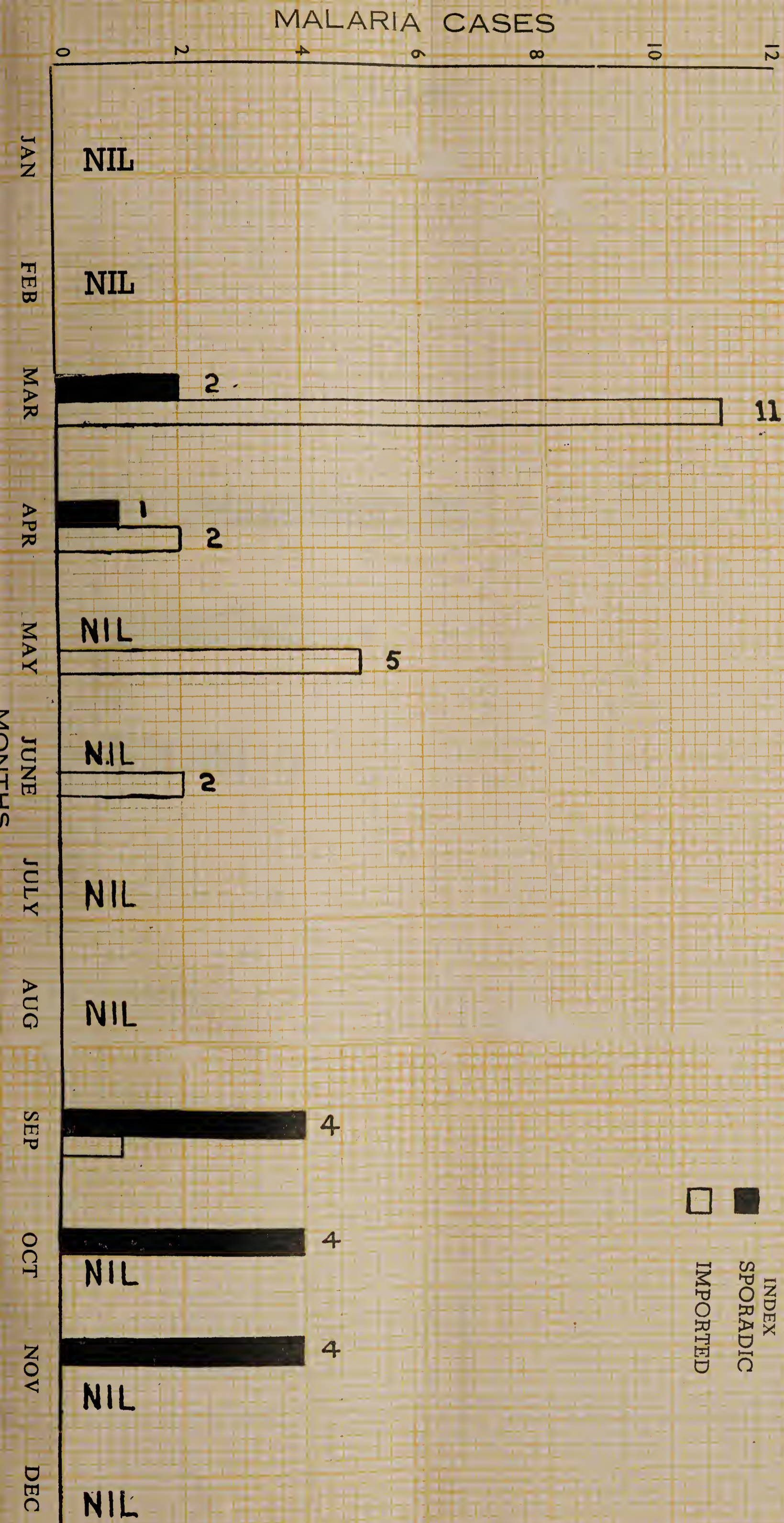
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2-80

MONTHS

NATIONAL MALARIA ERADICATION PROGRAMME
MALARIA CASES DETECTED

UNDER ACTIVE & PASSIVE SURVEILLANCE
MONTH WAR FOR 1961



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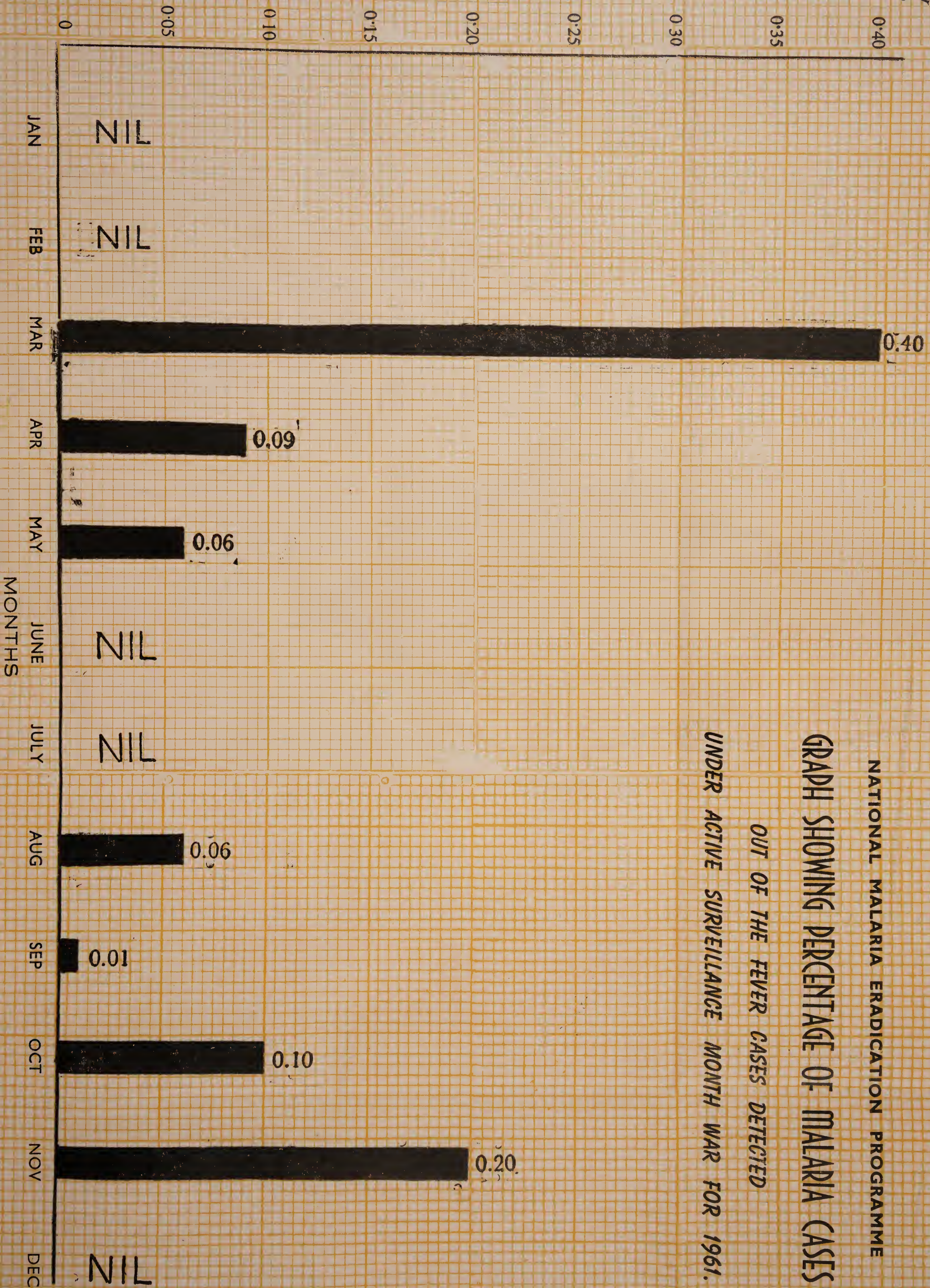
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MALARIA CASES DETECTED



NATIONAL MALARIA ERADICATION PROGRAMME

GRAPH SHOWING PERCENTAGE OF MALARIA CASES

OUT OF THE FEVER CASES DETECTED

UNDER ACTIVE SURVEILLANCE MONTH WISE FOR 1961.

MALARIA CASES DETECTED

9

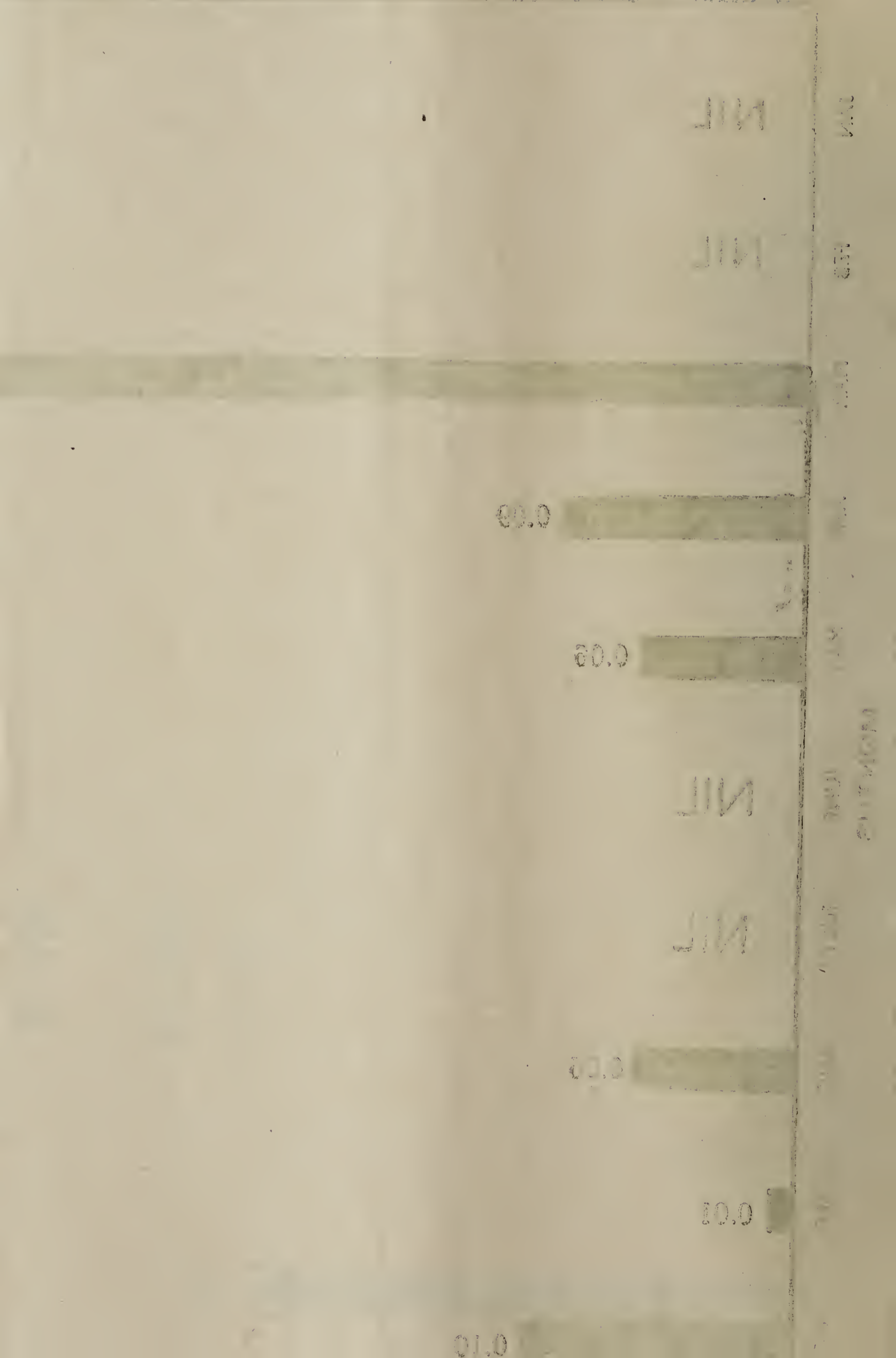
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Passive Surveillance.—Passive Surveillance is the detection of malaria cases by examining the blood smears taken from suspected cases of malaria at the Dispensaries and Hospitals. The Surveillance Staff regularly visit the dispensaries at fixed hours of the day and collect blood smears from the fever cases. Microslides have been distributed to the Medical Officers to take and send blood smears of fever cases. During the year 1,143 blood smears were collected from the Dispensaries of which 4 were found positive for malaria. The details in this respect are furnished below :—

Blood Smears from Dispensaries (Passive Surveillance).

Month	No. of blood smears received	No. of positive.	Per cent	Species			Remarks.
				v.	f.	m.	
January	16	...	...	...	...	...
February	4	...	...	...	...	...
March	1	...	...	...	...	...
April	1	...	...	...	...	...
May	193	3	1.554	2	1	...	
June	207	...	...	...	...	...
July	214	...	...	...	...	...
August	137	...	...	...	...	...
September	1	1	0.01	1	...	...
October	350	...	...	...	...	...
November	7	...	...	...	...	...
December	12	...	...	...	...	...
Total	1,143*	4	0.03	3	1	...	

* This includes 947 taken and examined in Railway Hospitals.

All cases found positive for malaria were treated radically with 8-aminoquinoline tablets.

Entomological Survey.—Routine and random collections of mosquitoes were regularly made to assess the effectiveness of the programme. The following species of Anopheles were recorded during the year :—

- A. Stephensi.
- A. Subpictus.
- A. Vagus.

The density of all *Anopheles* and *Anopheles Stephensi* per man-hour are furnished below :—

Month	Time spent		No. of non-vectors collected	Per man hour non-vectors	No. of vectors collected	Per man hour vectors
	Hrs.	Min.				
January	...	44 00	127	2.808	2	0.04
February	...	32 00	114	3.506	1	0.03
March	...	44 00	99	2.250	...	...
April	...	36 00	39	1.080	1	0.02
May	...	46 00	30	0.625	4	0.08
June	...	36 00	60	1.606	...	...
July	...	52 00	141	2.701	7	0.103
August	...	44 00	91	2.060	3	0.06
September	...	42 00	44	1.040	2	0.04
October	...	32 00	22	0.608	2	0.06
November	...	24 00	11	0.405	...	...
December	...	48 00	30	0.602	1	0.02
Total	...	480 00	808	1.608	23	0.04

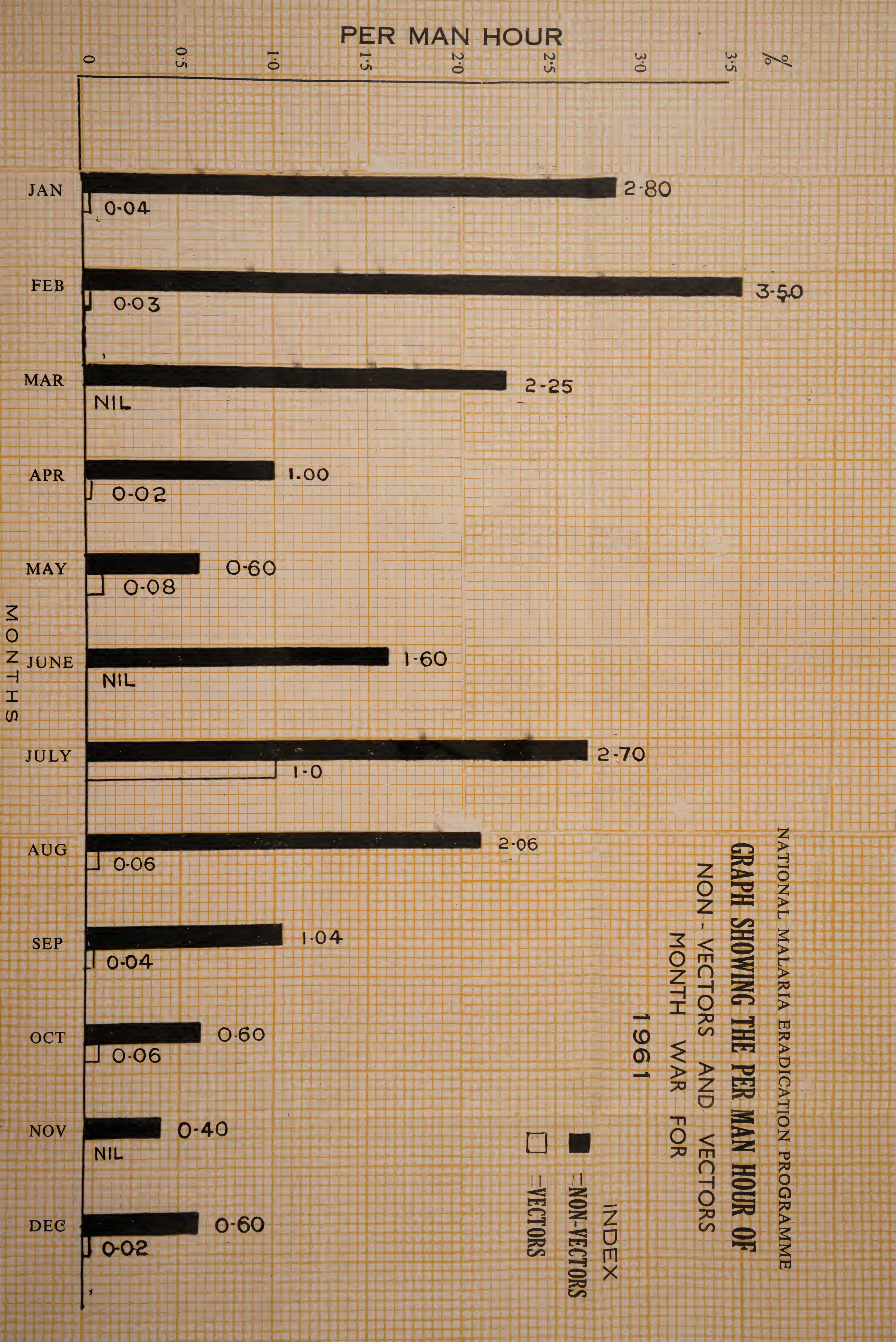
The density of *Anopheles* and particularly *A. Stephensi* has been very low and this has been achieved because of the intensive anti-larval measures.

Graph V furnishes the density of non-vectors and vector species for the year 1961.

Anti-Larval Measures.—The main sources of breeding of the vector species in Madras City are the wells, cisterns, ornamental tanks, overhead tanks, etc. All these have been completely brought under the scope of control. The wells have been classified as 'Used' and 'unused' and the used wells are stocked with larvivorous fish and the unused wells treated with Aromex emulsion, once every week. During the year, 27,250 wells were stocked with larvivorous fish and 3,500 wells regularly treated with the larvicide.

The quantity of Aromex spent during the year with particulars are furnished below :—

Total quantity of aromex used during the year 1961	...	16,020 Litres.
Average No. of wells covered every week with aromex	}	...
No. of wells stocked with gambusia fish		...



Cost.—A total sum of Rs. 1,11,440-29 nP. was spent during the year under the National Malaria Eradication Programme. This excludes the pay and allowances of staff diverted from General Malaria Section. The details are furnished below :—

Expenditure details—

		Rs.	nP.
1. Pay of Officers	...	4,860	00
2. Pay of Establishment	...	12,951	98
3. Dearness Allowance	...	4,614	09
4. Travelling Allowances and Other compensatory allowances	...	5,181	99
5. Office contingencies	...	9,747	83
6. Other charges (Labour salary)	...	74,084	40
Total expenditure incurred during the year	...	1,11,440	29

Motor Transport.—Two Dodge Power Wagons supplied in 1955 under the Indo-American Aid continue to serve the National Malaria Eradication Programme. The particulars of the expenditure for petrol, oil and lubricants along with the number of miles run are furnished hereunder :—

		MSY 1399		MSY 1407	
Type of vehicle	...	Dodge Power Wagon.		Dodge power Wagon.	
Date of supply	...	5-3-55		5-3-55	
No. of miles run for the year	...	2,266		3,381	
		Rs.	nP.	Rs.	nP.
Cost of fuel and oil	...	868	00	1,069	21
Expenditure incurred on other items of maintenance such as servicing, repairs, replacements of tyres and tubes, purchase of spare parts, etc.	...	106	44	117	86

Supplies.—The following table gives the particulars of supplies received as Central Aid during the period 1955 to 1961 :—

	1955	1956	1957	1958	1959	1960	1961
<i>Equipments—</i>							
Trucks	2	...	...	...	...	...	...
Power Sprayers	1	...	...	...	...	...	...
Hand Compression sprayers	12	...	...	...	...	...	...
Stirrup pumps	30	...	...	21	...	...	...

	1955	1956	1957	1958	1959	1960	1961
<i>Drugs—No. of Tablets—</i>							
Resockin ...	740	...	...	...	...	...	...
Nivaquine ...	1,000	...	...	...	...	13,000	14,000
Avlochlor ...	...	...	10,000	...	...	...	...
Chloroquine ...	...	...	...	...	...	21,500	30,000
Amodiaquine ...	...	...	...	...	...	...	40,000
Primaquine ...	...	...	...	...	...	3,000	50,000
<i>Insecticides—</i>							
DDT 75% wettable	1,39,000	75,422	30,095	20,500	...	...	...
Dieldrin 50% wettable ...	600	1,000	400	...	...	...	...

Issues of the items received as above are shown below :—

Drugs—

Resockin ...	...	740	...	...	...	...	...
Nivaquine ...	793	207	...	...	...	13,000	14,000
Avlochlor ...	...	...	925	806	759	7,200	...
Chloroquine ...	...	...	...	...	...	21,500	30,000
Amodiaquine ...	...	...	...	...	...	...	36,000
Primaquine ...	...	...	...	...	...	135	1,058

Other Activities.—Laboratory studies were regularly carried out to find out the mortality rate of mosquitoes caught from different parts of the City.

Five Surveillance Inspectors were trained by the Senior Entomologist at the Malaria Laboratory.

Conclusion.—The National Malaria Eradication Programme was intensified and continued successfully during the year under review. The entire population of the City was fully protected under anti-larval measures. The percentage of malaria cases treated in the Corporation and Railway Dispensaries showed a further decline to 0.008 as against a percentage of 0.009 during 1960. The Surveillance programme revealed the presence of 32 concealed malaria cases in the City and enabled the organisation to wipe out these reservoirs of infection, by giving immediate radical treatment to them.

The programme as envisaged is being implemented intensively and will achieve success within the stipulated period.

SANITATION

Sanitation as an important part of the Public Health Administration of the City continued to be under the control of the City Health Officer, Dr. B. V. Sundara Babu, M.B.B.S., D.P.H. (Cal.), during the year and he was assisted in his duties by the following Assistant Health Officers :—

(1) *Permanent Assistant Health Officers—*

1. Dr. P. V. Balakrishna Marar, L.M. & S., B.S.Sc.
2. Dr. I. Gopalakrishnan, B.A., M.B.B.S., B.S.Sc.
3. Dr. N. Dakshinamurthy, M.B.B.S., B.S.Sc.
4. Dr. P. R. Krishnamurthy, M.B.B.S., B.S.Sc., T.D.D., F.C.C.P.

(2) *Acting Assistant Health Officers—*

1. Dr. K. Narayanamurthy, M.B.B.S., T.D.D.
2. Dr. T. C. Sankaravelayudam, M.B.B.S.

(Both acted in the leave vacancies of the above permanent Assistant Health Officers).

Each of the four permanent Assistant Health Officers was in-charge of 25 divisions and 61 Sanitary Inspectors were directly responsible for the sanitation in the divisions.

Food Sanitation

Hotel Sanitation—

1. No. of renewal applications received for licences for Food Handling Establishments under Section 279 of M.C.M. Act	...	2,784
2. Number recommended	...	2,711
3. Number refused	...	67
4. Number pending	...	6
5. No. of new applications received under Section 279	...	148
6. No. recommended	...	132
7. No. refused	...	16
8. No. pending	...	Nil
9. No. of Coffee Hotels with meals section	...	160
10. No. of Coffee Hotels without meals section	...	322
11. No. of Eating Houses only	...	827
12. No. of Tea Clubs	...	39
13. No. of Tea Stalls, Tea Shops or Tea Stands	...	1,149
14. No. of Canteens attached to firms, offices, etc.	...	112
15. Number of Mobile Canteens	...	1
16. Number of Lodging Houses without boarding facilities registered under Public Health Act	...	113
17. Number of Lodging Houses with boarding facilities registered as well as licensed under the Madras City Municipal Act	...	49

Prevention of Food Adulteration.—It is a known fact that adulteration of Food stuffs detrimental to the Public Health and this sort of unsocial activity among the trades has to be checked in all possible ways. The Health Department has been taking necessary steps to prevent the sale of adulterated food stuffs especially the milk which lends itself to be easily adulterated. These are 5 Food Inspectors each being in-charge of 20 divisions to detect and book the offenders under the provisions of the prevention of Food Adulteration Act of 1954, and the Rules framed thereunder. During the year under review the Food Inspectors continued to carry out their duties under the guidance and instructions issued by the Assistant Health Officers and the Health Officer. The samples of food stuffs taken from the suspected vendors are sent to the Public Analyst who is in-charge of a well equipped laboratory behind Ripon buildings. As and when the samples are received they are analysed by the Food Analyst with the help of his seven assistants and other technical staff and on receipt of the analysis reports action is taken for prosecuting the offenders.

During the year under review, the total number of milk, butter, ghee, gingelly and other oils, tea, ghee substitutes, turmeric, arrowroot, honey and other articles, samples analysed was 7,163. Out of them 5,412 were found to be genuine and the remaining 1,751 were adulterated. The percentage of adulterated samples comes to 24.4 as against 28.7 during the previous year. The percentage of adulterated milk samples was 38.5 as against 43.2 of 1960.

Milk Sanitation

1.	Number of applications received for licences for milk trade.	948
2.	Number recommended	689
3.	Number refused	259
4.	Number pending	Nil
5.	Number of licenced milk-men	825
6.	Number of licences renewed for old depots other than those of Madras Co-operative Milk Supply Union	270
7.	Number of milk depots of the Madras Co-operative Milk Supply Union for which licences were renewed	18
8.	Number of new milk depots opened by the Union during the year	1
9.	Number of unlicensed milk depots	273
10.	Number of notices for effecting improvements issued in respect of item 9	54
11.	Number prosecuted for non-compliance	10
12.	Number improved and made fit for licensing	46
13.	Number closed as a result of action taken	6

Market Sanitation

Sanitation and proper upkeep of Public and Private Markets in the City where people gather daily for purchase of their requirements are considered to be important from the public health point of view and are under constant observation of the health staff. Besides seeing that sanitation is maintained in the markets, the Sanitary staff also had taken steps to prevent the sale of rotten fruits,

vegetables, fish and other food-stuffs considered to be unfit for human consumption. During the year under review necessary precautions were taken to maintain cleanliness in both Public and Private Markets in the City.

Public Markets

With a view to set an example to the owners of the private markets, the Health Department staff have been taking all possible steps to maintain the 12 Public Markets in various parts of the City in a clean condition. During the year under review these markets were under the charge of Market Superintendents and Sanitary Inspectors of the respective divisions for maintenance of sanitation and order. The markets were daily washed and kept clean besides deflying them periodically with the help of the concerned Malaria staff of the divisions. The Public Markets maintained in the city are furnished below with its location for information.

<i>S. No.</i>	<i>Dn. No.</i>	<i>Name and location of market.</i>
1	29	Dr. Malliah Market, 69, Wall Tax Road.
2	40	Smith Field Market, Rotlers Street, Choolai.
3	45	Ayanavaram Daily Market, Market Street, Ayanavaram.
4	51	Shenoy Nagar Market, Shenoy Nagar.
5	52	Market at the junction of Taylors Road and McNicholl's Road.
6	53	Jagannathapuram Market, Jagannathapuram 3rd Street, Chetput.
7	64	Fruit Market, N.S.C.B. Road.
8	64	Moore Market, Poonamallee High Road.
9	80	Nadukuppam Market, Nadukuppam 1st Street, Triplicane.
10	93	T. Nagar Meat Market, 39, Theagaraya Road.
11	93	T. Nagar Vegetable Market, 61-A, T. Nagar Road.
12	98	Razaack Market, 14/6, Bazaar Road, Periapet, Saidapet.

(In addition to these there is a pavement vegetable market on the western side of Panagal Park, T. Nagar, Division No. 93).

Private Markets

In addition to the above Public Markets, there are 48 Private Markets in the City run by Private owners for the benefit of the Public. Most of these Private Markets were licensed under the Madras City Municipal Act during the year. In the case of the few markets there was some delay in issuing licences due to delay on the part of the owners in complying with the conditions laid down in the licence. At the time of renewal of licences all the Private Markets were inspected by the Health Officer and his Assistant Officers and the owners were instructed to attend to the annual repairs, white and colour washing and other improvements. These markets are daily inspected by the respective divisional Sanitary Inspectors and periodically by the Assistant Health Officers to ensure better sanitation and cleanliness.

The mutton stalls inside the markets, as well as those outside the markets in different parts of the City were inspected by the sanitary staff systematically and the owners were instructed to maintain them in accordance with the conditions of licences issued. Surprise inspections were also made by the Health Officer and his Assistants to prevent sale of stale or unstamped meat by the private mutton stall-holders.

The names with the location of private markets in the City during the year 1961 are given below :—

<i>S. No.</i>	<i>Dn. No.</i>	<i>Location.</i>
1	1	Tondiarpet Market, 11, Thandavaraya Gramany Street.
2	1	New Washermanpet Market, 322, T.H. Road.
3	3	Kalmandapam Market, 13/12, Kalmandapam Road.
4	5	Washermanpet Market, 5/6, Venkatakrishna Street.
5	6	Pitchandi Nadar Market, 82/83, Narasier Street.
6	8	Royapuram Market, 16, Mannarswamy Koil Street.
7	13	Macdonald Market, Sengalani Pillaiar Koil Street, Muthialpet.
8	14	Olakadai Market, 180, Angappa Naicken Street.
9	15	Mannady Market, 88/90, Mannady Street.
10	17	Seven Wells Market, 111, Govindappa Naicken Street.
11	18	Chengam Bazaar Market, 84/85, Nattu Pillaiar Koil Street.
12	19	Kothawal Market, 1, Audiappa Naicken Street.
13	25	Kondithope Market, 32, Peddu Naicken Street.
14	31	Lakshmi Market, 5, Selvavinayagar Koil Street.
15	32	Vyasarpady Market, 15-A, Erukancheri High Road.
16	34	Ottery Market, 120-B, Strahans Road.
17	36	Demellows Market, 124, Demellows Road.
18	39	Choolai Market, 37, Vijayavigneswarar Koil Street.
19	41	Balachandra Chetty Market, 49, Market Street.
20	42	M. J. Abdul Kadar Market, 17, Madavaram High Road.
21	44	Othavadai Market, 22/2, Toll Gate, Othavadai Street.
22	48	Kandaswamy Koil Trust Private Market, 3, Pudu Street.
23	51	Aminjikarai Market, 326, Poonamallee High Road.
24	54	Village Road Market, 17, Village Road, Nungambakkam.
25	55	Kodambakkam Market, 54, Kodambakkam High Road.
26	57	Thousand Lights Market, 41/56, Mount Road.
27	62	Purasawalkam Market, 27, Purasawalkam High Road.
28	64	Ellamman Devasthanam Market, Narayana Chetty Street, Periamet.
29	64	I.C.A.C. Charities Market, 314, Wall Tax Road.
30	66	Chintadripet Market, 17 Arunachala Naicken Street.
31	67	Egmore Market, 92, Egmore High Road.
32	68	Connemara Market, 32, Harris Road.
33	71	Moulana Market, 730, Triplicane High Road.
34	72	Moosa Sait Market, 91, Venkatesa Naicken Street.
35	76	New Janda Market, 291, Triplicane High Road.

<i>S. No.</i>	<i>Divn. No.</i>	<i>Location.</i>
36	76	Zambazaar Market, 428/434, Pycrofts Road.
37	78	Mirsahibpet Market, 184, Venkatachala Mudali Street.
38	78	Sultan Market, Royapettah High Road.
39	81	Azeez Market, 71/1, Mount Road, Teynampet.
40	82	Tannithorai Market, 75, Royapettah High Road.
41	84	Mylapore Market, 80, Bazaar Road, Mylapore.
42	85	Mandavalli Market, 65, Mandavalli Street.
43	88	Eldams Road Market, 11-A, Eldams Road.
44	90	Arunachalapuram Market, Adyar.
45	92	Vadapalani Market, 140/141, Arcot Road.
46	92	Trustpuram Market, Trustpuram, Kodambakkam.
47	96	Kasiviswanathar Devasthanam Market, 40-L, Eswaran Koil Street.
48	98	Karaneeswarar Devasthanam Market, 5/6, Jeenis Road.

Destruction of the Unwholesome Foodstuffs

The practice of the sale of unwholesome foodstuffs exposed to dust and flies by petty vendors in front of Markets, Schools, important junctions of roads and on road margins are prevented by arranging frequent raids. During the year under review a special staff consisting of a sergeant and three thozhilalies employed for this purpose conducted regular raids by drawing programmes in advance. In addition to these, the Divisional Sanitary Staff also took active part in destroying the food-stuffs exposed to dust and flies wherever found during their rounds in their jurisdiction.

The following tabular statement shows the quantity and kind of unwholesome foodstuffs seized and destroyed during the year 1961 by the Health Staff :—

<i>S. No.</i>	<i>Foodstuffs.</i>	<i>Quantity.</i>
1	Vegetables	... 10,668 Lbs.
2	Fruits	... 8,792 „
3	Meat	... 646 „
4	Fish Dried	... 694 „
5	Fish	... 2,025 „
6	Iddlies, Vadai, etc.	... 13,794 „
7	Syrup	... 1,913 Gallons.
8	Carcasses	... 5 Nos.
9	Tea and Coffee	... 8 Kettles.
10	Other articles	... 2,566 Lbs.

Slaughter Houses and Meat Hygiene

Meat hygiene is a major aspect of veterinary public health. The primary purpose of meat hygiene practice is to prevent transmission of disease from animals to man through meat and to provide safe and wholesome meat products for his consumption. The successful development of public health involves problems of improved meat supply for human consumption.

It is with great difficulty that adequate and efficient meat inspection is maintained with the limited facilities provided for.

A scheme for modernising the Corporation slaughter houses as recommended by the F.A.O. expert on slaughter houses was sent to the State Government for grant and other aids. The Government was also impressed with the necessity for such modernisation and favourable orders are expected in this behalf. There are five slaughter houses run by the Corporation and they are under the charge of Veterinary Surgeons. They are located as follows :—

1. Cattle Slaughter house ... 1 at Perambur.
2. Sheep Slaughter house ... 1 at Perambur and 1 at Saidapet.
3. Pig Slaughter house ... 1 at Perambur and 1 at Saidapet.

The Superintendent Slaughter Houses is assisted by one Veterinary Assistant Surgeon and a Sanitary Inspector. The meat Inspection is done only by the Superintendent or his Assistant. After the ante-mortum and post-mortum examinations, the inspected carcasses are stamped with indelible ink before passing out as fit for human consumption.

The details of the meat inspection in all the slaughter houses during the year 1961 are as follows '—

Kind of animals slaughtered	No. of animals brought for slaughtering for inspection	No. disallowed after ante-mortum examination	No. of animals actually slaughtered	No. of carcasses rejected after post-mortum		Organs condemned.
				Whole carcass	Portions	
Cattle ...	29,004	2,182	26,822	Nil	371	6,713
Sheep & Goats	5,37,967	1,187	5,36,780	21	Nil	8,642
Pigs ...	4,313	Nil	4,313	Nil	2	454

The fees collected towards issue of meat Inspection Certificates for the export of Beef during the year amounted to Rs. 1,100.

During the year under review, students from Medical Colleges and other Institutions in the City and also outside visited the slaughter houses. They were given all facilities to study the working of the slaughter houses and short lectures were also given to them on Meat Hygiene and Zoonoses with practical demonstrations in "Meat Inspection".

Students from the Madras Veterinary College were regularly attending the slaughter houses during the evenings in batches accompanied by the concerned Lecturer for classes on "Meat Hygiene and Genetics." Flaying classes for the Butcher Boys, Livestock Inspectors and Block Development Officers from the districts were also conducted in the slaughter houses by the State Animal Husbandry Department.

Blood Meal

During the year, Blood from the Cattle and Sheep slaughter houses at Perambur was collected daily and removed in a Tractor Tank attached to the tractor to the Blood meal manufacturing Centre at Kodungaiyur. The Collected Blood is boiled and dried in the sun. The dried blood meal is powdered, stored and sold as manure to the Public and Fertiliser Manufacturing Firms. Blood meal was sold for Rs. 5,292-50. during 1961. In addition to this, a Pharmaceutical firm was permitted to collect fresh blood from the cattle slaughter house on payment fixed by the Standing Committee (Health). The amount collected by sale of Fresh Blood during the year was Rs. 8,100.

Raids for stray pigs in the City were conducted during the year and 64 pigs were caught. Those pigs were slaughtered and the pork auctioned. The amount realised by auctioning of the pork during the year was Rs. 393.

Raids were conducted for detecting any unstamped mutton in the stalls and also unwholesome foodstuff sold in the road-side bazaars in the various parts of the City were removed in vans and destroyed.

During the year a loan of Rs. 1.00 lakh (Rupees one lakh) was granted by Government for the improvements of the Slaughter Houses at Saidapet. Detailed plans have been prepared and the work is to be executed shortly.

Meat Inspection

1. No. of Private Mutton Stalls at the beginning of the year	139
2. No. of Mutton Stalls opened during the year	14
3. No. of Beef Stalls at the beginning of the year	47
4. No. of Beef Stalls opened during the year	4
5. No. of Pork Stalls at the beginning of the year	Nil
6. No. of Pork Stalls opened during the year	Nil
7. No. of unstamped carcasses seized	93
8. No. of cases of illicit slaughter detected	Nil

Environmental Sanitation

Housing—

1. No. of houses other than huts in the City	1,43,280
2. No. of houses used for dwelling purposes	1,31,586
3. No. of houses used for purposes other than dwelling	11,274
4. No. of huts	48,801
5. No. of building applications received from the Works Department	118
6. No. recommended for sanction in item No. 5	99
7. No. of building applications recommended for refusal on sanitary grounds	44
8. No. of tenements built prior to 1-1-1961	232
9. No. of tenements built prior to 1-1-1961 and brought under occupation in 1961	38
10. No. of tenements built and brought under occupation in 1961	11
11. No. of tenements under construction at the end of the year 1961	11

House Inspection

1.	No. of houses inspected as a routine measure	...	31,059
2.	No. of houses inspected on complaints made	...	1,491
3.	Average No. of houses inspected per mensem	...	2,845
4.	No. of houses found untenanted	...	220
5.	No. of houses found defective for want of protected water-supply	...	222
6.	No. of houses found defective for want of ventilation	...	539
7.	No. of houses found defective for want of proper drainage arrangements	...	746
8.	No. of houses found defective otherwise	...	2,261
9.	No. of notices issued for rectification of defects	...	3,150
10.	No. Prosecuted for non-compliance	...	350
11.	No. of houses repaired as a result of action taken	...	2,452

Latrine Accommodation

1.	No. of houses found without any latrine	...	332
2.	No. of notices issued in respect of item No. 1	...	266
3.	No. of houses provided with latrine accommodation as a result of action taken	...	249
4.	No. of houses found defective for want of adequate latrine accommodation	...	220
5.	No. of notices issued in respect of item No. 4	...	180
6.	No. of houses provided with additional latrine accommodation as a result of action taken	...	140
7.	No. of houses in sewered areas without F.O.Ls.	...	214
8.	No. of notices issued for conversion of masonry latrines into F.O.Ls.	...	177
9.	No. of houses wherein the masonry latrines were converted into F.O.Ls. as a result of action taken	...	130

Cesspools

1.	No. of houses with cesspools	...	38,172
2.	No. of houses without cesspools	...	464
3.	No. of notices issued in respect of item No. 2	...	225
4.	No. of houses provided with cesspools as a result of action taken	...	184
5.	No. of notices issued in respect of inadequate cesspools	...	43
6.	No. of houses provided with enlarged cesspools as a result of action taken	...	37

Home for Homeless

The Corporation continued to provide temporary shelter with all amenities at the 5 Homes for Homeless in the various parts of the City, for the benefit of people coming from mofussil places in search of employment. During the year under review all the Homes were fully occupied.

The particulars of accommodation and the location of the Homes are given below :—

S. No.	Dn. No.	Location of Homes	Accommodation available for persons	Strength maintained
1	13	Ibrahim Sahib Street ...	66	66
2	27	131, Wall Tax Road ...	100	100
3	63	Behind Zoo ...	40	40
4	70	Ritchie Street ...	40	40
5	80	Gajapathy Lala Street ...	20	20

Dhobikhanas

In order to prevent washing of cloths in dirty, contaminated and stagnated waters which may transmit disease to human beings, the Corporation continued to maintain seven Dhobikhanas in the City which are provided with all facilities for washing, drying, ironing, etc. The existing Dhobikhanas are periodically inspected by the Health Officer and his executive staff and improvements are effected wherever necessary.

The following three new Dhobikhanas were under construction during the year under review to meet the growing demand of the washermen in the City :—

S. No.	Div. No.	Location.
1	1	Irusappa Maistry Street, New Washermanpet.
2	44	Pudu Nagar, Ayanavaram, Madras.
3	98	Abdul Razack Street, Gotha Medu, Saidapet.

The first named Dhobikhana in Division 1, was almost completed during 1961 and ready for opening during the early part of the next year.

The statement of particulars given below shows the locations and No. of stones provided in each Dhobikhana in the City :—

S. No.	Dn. No.	Location	No. of stones provided
1	1	Buchiammal Street ...	40
2	9	Robinson Park, Cemetery Road ...	42
3	35	Ekanagipuram 1st Street ...	6
4	48	Conran Smith Nagar ...	52
5	54	McNichols Road; Chetput ...	122
6	54	Pillaiar Koil Street, Chetput ...	36
7	82	Apparsamy Koil Street, Mylapore ...	22

Protected Water-Supply

Samples of protected water supplied to the City during the year was periodically analysed by the Water Analyst and was treated wherever necessary with chemicals, etc. The people living in slums and extended areas were also supplied with protected water with the help of lorries. Besides this, steel and masonry tanks provided for storing protected water were also daily filled for the use of the people.

Swimming Pools.—The Corporation continued to maintain two Swimming pools one at People's Park adjoining to "My Lady's Garden" and the other at Marina Beach. The services of the Instructors posted for the purpose of training young men and women in the art of swimming were also continued during the year.

Conservancy.—The cleansing work in the City continued to be under the charge of Mechanical Engineer and Cleansing Officer who was assisted by two Assistant Cleansing Officers. The main function of collection and disposal of rubbish and sullage water was carried out as usual besides maintaining the City roads clean and tidy.

Sewers and F.O.Ls.—The City's roads were sewered at the beginning of the year upto an extent of 494.12 miles and during the year additional sewers were laid for 10.29 miles.

The following statement shows the length of sewers laid during the year in each drainage area :—

S. No.	Name of drainage area.	Length of sewer laid (in feet)
1	Tondiarpet	1,200
2	Royapuram	560
3	Purasawalkam	2,394
4	Perambur	200
5	Nammalwarpet	1,329
6	Kilpauk	8,747
7	Chetput	4,714
8	Shenoy Nagar	315
9	Napier Park	1,340
10	Greames Road	2,130
11	Ice House Road	360
12	North Mylapore	4,651
13	South Mylapore	2,621
14	T. Nagar	286
15	Adyar	598
16	Saidapet	22,329
Total		54,329

Health Education and Propaganda

Health Education and Propaganda work in the City continued to be under the supervision of the Health Propaganda Officer. Dr. P. S. Sambandam.

During the year under review advance programmes were sent to the Hon. Divisional Councillors and every month about 30 to 35 divisions were covered. The Health Propaganda work was done in the mornings and film shows were arranged in the evenings.

Health Propaganda was done through talks over the microphone which were radiated to the public by amplifiers. Sometimes tape-recorded propaganda was also used.

The Health Propaganda was on prevention and control of infectious diseases, environmental sanitation and need for civic responsibilities. The public were exhorted to co-operate with the staff to carry out their health promotion activities. Between the months of April 1961 and September 1961, the health propaganda staff assisted in implementing the small-pox Eradication Scheme successfully by intense propaganda, film shows and issuing of pamphlets. Slides were also shown at several cinemas in the City.

The following table gives the number of propaganda assignments to the various division during the year 1961 :—

Months	No. of assignments, to divisions	Approximate total No. of persons who attended health talks, film shows, etc.
January	31	10,000
February	24	9,000
March	32	10,500
April	38	11,000
May	40	13,300
June	32	10,000
July	39	15,650
August	43	14,000
September	41	12,600
October	Van under brake test	
November	15	6,000
December	41	11,200

Details of Film Shows exhibited during the year 1961 :—

Month.	No. of film showns	Approximate total No. of persons
January	8	8,000
February	9	10,000
March	12	16,500
April	14	22,300
May	13	18,000
June	11	13,000
July	12	9,000
August	16	25,000
September	10	8,000
October	Van under brake test	
November	Projector under repair	
December	Do.	

1.	No. of trips made by the van with the propaganda staff	...	600
2.	Divisions covered	...	100
3.	No. of times the City was covered	...	3

Industrial Sanitation—Trades—Licences*Offensive Trades—*

1.	No. of renewal applications received for old offensive trades (Section 287 of Madras City Municipal Act)	...	8,503
2.	No. of applications recommended	...	7,122
3.	No. of applications refused	...	1,357
4.	No. of applications pending	...	24
5.	No. of new applications received for offensive trades. (Section 287)	...	1,323
6.	No. of new applications recommended	...	663
7.	No. refused for sanitary reasons other than the prohibition under the Public Health Act	...	178
8.	No. refused in view of the prohibition under the Public Health Act	...	482
9.	No. of appeals preferred by the parties to the Standing Committee	...	202
10.	(a) No. of appeals allowed by the Standing Committees	...	120
	(b) No. of appeals rejected by the Standing Committees	...	52
11.	No. of references made to the Council	...	80
12.	No. of cases in which the Council reversed the decision of the Standing Committee	...	10
13.	No. of cases in which the Council upheld the decision of the Standing Committee	...	70
14.	No. in which the Council's decision was given effect to	...	1
15.	No. in which Government instructions or orders were sought in respect of Council's decision	...	48
16.	No. in which Government orders were received	...	13

Miscellaneous

1. No. of Laundries	...	871
2. No. of Hair Dressing Saloons	...	1,074
3. No. of Sweet Meat Stalls	...	193
4. No. of Firewood Depots	...	430
5. No. of Charcoal Depots	...	201
6. No. of Charcoal and Firewood Depots	...	321
7. No. of Aerated Water Factories	...	67

Port Sanitation

Out of 1,194 vessels arriving at this port during the year under review only 59 vessels with 3,843 crew and 4,963 passengers were inspected on arrival during the year. 1 case of chicken-pox and 1 case of Diphtheria were landed ex. 2 vessels and on arrival suitable measures were taken to prevent the spread of the disease.

Out of 1,191 vessels leaving this port during the year under review only 438 vessels with 25,482 crew and 28,649 passengers were inspected at the time of departure for foreign countries.

The personal effects of the infected crew and passengers and their contacts as well as 52 bales, 25 boxes and 53 cases of imported second hand clothing intended for distribution were disinfected before release.

Bedding and clothing, etc., of 681 new crew were inspected and disinfected before articles were taken on board.

Seamen's provisions of 34 vessels were inspected.

34 vessels were examined with regard to the Medical Stores kept on board, they were maintained according to the prescribed scales and wherever necessary suggestions were made to make good the shortage, if any.

Imported food stuffs were inspected at the Port of Madras under the Prevention of Food Adulteration Act, 1954 and on request from the Traffic Manager, Madras Port Trust in connection with unclaimed articles of food lying in their godowns before auctioning them for sale.

During the year, the following such articles were inspected all of which were declared fit for human consumption :—

1. Milk Powder	...	7,79,139 lbs. 1 case, 1,917 drums, 23,054 cartons.
2. Milk Food (Baby)	...	2,45,694 lbs. (1,548 bags, 5 tins and 2 cases.).
3. Butter Milk Powder	...	20,527 lbs.
4. Chicory Powder	...	27,18,975 lbs.
5. Horlicks	...	1,81,645 lbs.
6. Food Colours	...	1,40,692.14 lbs., (29 tins and 1 bag.)
7. Ovaltine	...	1,78,598 lbs.
8. Prunes	...	2,592 lbs.
9. Almonds	...	1,932 lbs.

10. Cheese	...	39 lbs.
11. Betelnut	...	68,492 lbs.
12. Nutmegs	...	18,430 lbs.
13. Star Annista	...	2,28,929 lbs.
14. Edible Gelatine	...	11,928 lbs.
15. Cassia Ligma	...	10,016 lbs.
16. Yeat	...	4,856.63 lbs.
17. Malt	...	32,44,000 lbs.
18. Mace	...	23,618.62 lbs.
19. Cloves	...	80,172 lbs.
20. Bottle Sauce	...	420 lbs.
21. Cashewnuts	...	7,55,153 lbs.
22. Olive Oil	...	859 lbs. and 5½ gallons
23. Pepper	...	12,000 lbs.
24. Tinned Fish	...	323 lbs.
25. Maize	...	8 bags.
26. Maize flour	...	28 bags.
27. Peppermint Oil	...	10 bottles.
28. Tea Packet	...	3
29. Black Gram	...	1 bag.

However the following items were declared unfit for human consumption either after physical examination or after receiving analysis reports to that effect from the King Institute, Guindy :—

1. Wheat	...	118 bags.
2. Milk Powder	...	70 drums, 86 bags and 8 cartons.
3. Cashewnut	...	1 bag.
4. Cigarettes	...	5,988 tins and 8 packets.
5. Maize bags	...	36.
6. Rice	...	71 bags.
7. Glucose	...	3 drums.
8. Food Colours	...	5 tins.
9. Chicory Powder	...	3 bags.

410 seamen trainees, seamen for continuous certificates of discharge and other candidates for employment as seamen were medically examined and certificates of fitness or otherwise issued.

On receipt of radio message from the Masters of 8 vessels at sea seeking medical advice in connection with sickness on board the vessel, necessary advices were sent immediately to the Master concerned.

Sanitation of the Port area was looked after by the Madras Port Trust and maintained satisfactorily. Storage tanks of water-supply of the port area, were cleaned regularly and water from these sources was analysed at regular intervals. Measures were taken to rectify the defects when noticed.

17 Deratisation Exemption Certificates and 13 permits were issued at this Port.

161 vessels seeking Radio Pratique were granted the same on furnishing the requisite messages.

MEDICAL RELIEF

1. HOSPITALS

Infectious Diseases Hospital, Tondiarpet

INTRODUCTION

This Hospital has completed 37 years of service in 1961. There have been a lot of improvements during the last few years and year after year it is becoming more and more popular as can be seen from the increasing number of voluntary admissions, especially cases of Small-pox and Diarrhoea. There is no doubt, that the Hospital requires more improvements in several respects. Though the number of annual admissions in the Hospital has increased considerably during the recent years, the work is being managed without appreciable increase in the complement of the permanent staff. The sanctioned permanent bed accommodation has been increased from 108 to 280 and the average daily in-patients' attendance has gone up three-fold. Whenever there is an epidemic, additional staff are employed on temporary basis ; but the patients do not get as much benefit as they should since most of this staff are untrained, and so there is necessity for increasing the complement of permanent staff of the Hospital to some extent.

The Hospital has become a Training Centre for the Medical Officers of Health from abroad and more than that it has become a Research Centre for Small-pox. Already several papers are published of the studies made in this Hospital in the year 1960 and in the year 1962, some more Research Projects will be started. The WORLD HEALTH ORGANIZATION has recognized importance of this Hospital and has approved this place for further research on Small-pox. This institution is growing in importnace and hence there is an urgent need for improving the Hospital still further so that it can come up to a high standard of efficiency.

Administration and Staff

Dr. A. R. Rao, the Superintendent of the Hospital, who went abroad as a Fellow in Virology on invitation from the University of Colorado Medical Centre, Denver, U.S.A., has returned and resumed his post on the 1st of June 1961. During his stay abroad, he had an intensive training in Virology with special reference to Vaccinia and Variola viruses and the research techniques in the viral work. In his absence Dr. I. Prahlad, the permanent Resident Medical Officer of the Hospital, acted as Superintendent. The other medical staff of the Hospital continued to be the same during the year under review—Dr. Prahlad as the Resident Medical Officer, and Drs. M. Swaminathan and A. Lakshmi as Assistant Medical Officers.

Excepting for about a month or so, there has been continuously additional temporary staff under various categories working throughout the year since epidemic conditions prevailed.

Patients and Their Care

Altogether 8,856 new cases of all diseases were admitted during the year and including those who remained at the end of the previous year, 9,081 cases were treated. Of these, 7,983 were discharged cured, 940 died and 158 remained under treatment at the close of the year.

Statement No. 1—Showing the total number of cases admitted and treated during the year 1961.

Particulars	Number of Cases	Number of Contacts
Number remained at 00-00 hrs. on 1-1-1961 ...	225	50
Number admitted during 1961 (1-1-1961 to 31-12-1961) ...	8,856	3,127
Total treated during the year ...	9,081	3,157
Total discharged cured during the year ...	7,983	3,131
Total died during the year ...	940	...
Number remaining at 24-00 hrs. on 31-12-1961 ...	158	46

The overall Case Fatality Rate was 10.6 as against 4.81 in the year 1960. This increase was due to epidemic conditions of Small-pox prevailed during the year. The total admissions month-wise along with the deaths are shown in Graph No. 1, the peak month was March, when there were nearly 1,700 cases. Statement No. 2 below shows the admissions and deaths disease-wise.

Statement No. 2—Showing the attacks and deaths disease-wise during the year 1961.

Diseases	City			Mofussil			Total attacks	Total deaths	Mortality Rate %
	Attacks	Deaths	Mortality Rate %	Attacks	Deaths	Mortality Rate %			
Small-pox ...	3,666	799	21.82	187	32	17.11	3,853	831	21.6
Chicken-pox ...	1,934	...	...	170	...	...	2,104	...	...
Measles ...	1,187	6	0.5	53	...	...	1,240	6	0.48
Mumps ...	216	1	0.45	20	...	...	236	1	0.42
Cholera ...	...	...	...	...	...	...	...	...	...
Other diseases ...	1,224	94	0.71	199	8	0.4	1,423	102	0.7
Total ...	8,227	900	11%	629	40	6%	8,856	940	10.6%

Fig 1.

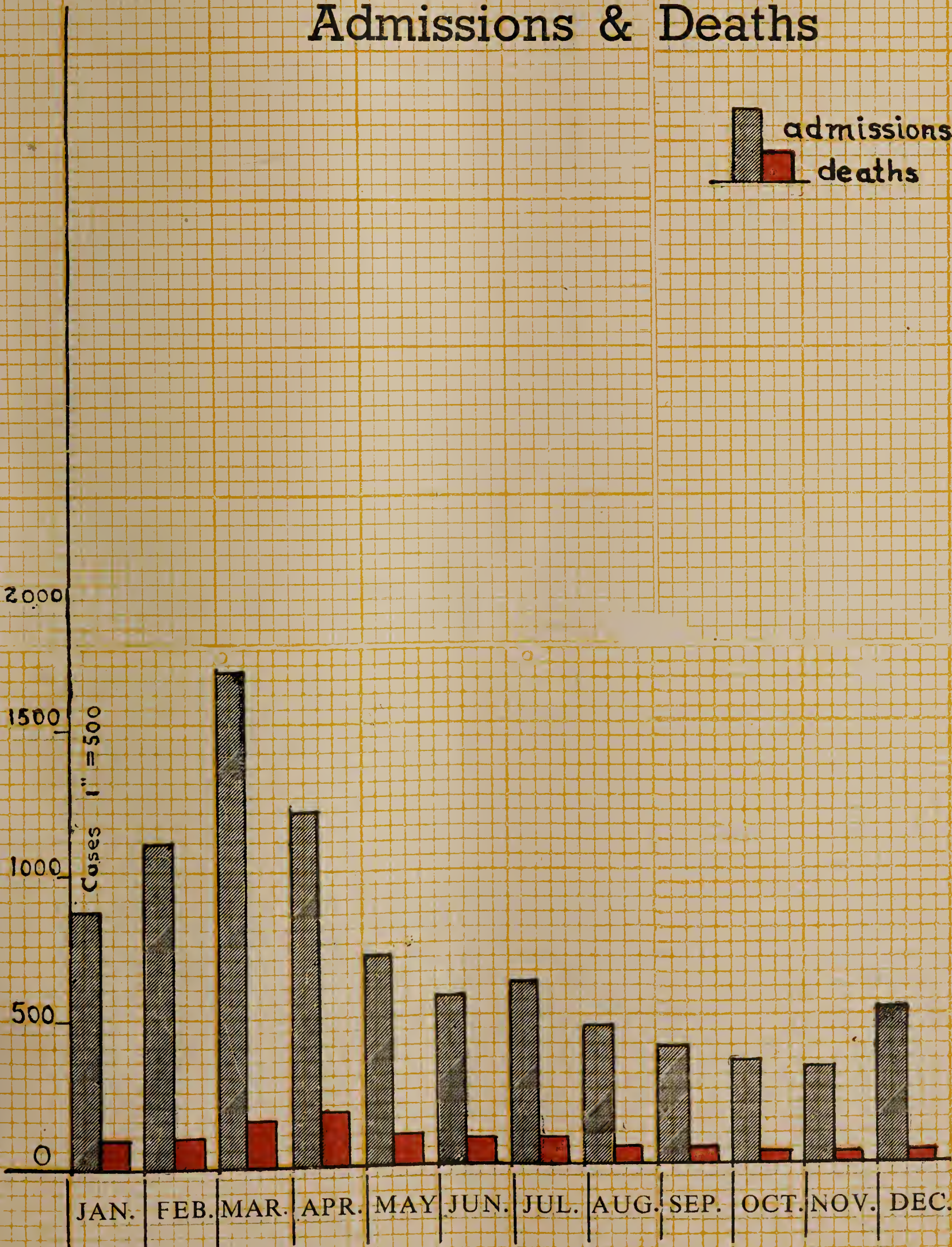
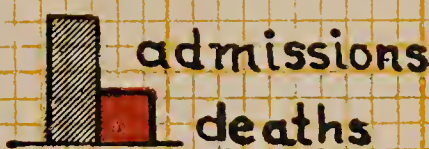
INFECTIOUS DISEASES HOSPITAL

TONDIARPET, MADRAS.

1961

All Cases

Admissions & Deaths



Small-pox

Small-pox prevailed as an epidemic during the year. There were 3,666 cases from the City and 187 cases from the mofussil admitted to the Hospital as against 2,177 and 471 respectively in the year 1960. Figure 2 and the Statement 3, shows, admissions and deaths due to Small-pox month-war.

Statement No. 3—Showing the admissions and deaths due to Small-pox, month-war, during the year 1961.

Months	City		Mofussil	
	Admissions	Deaths	Admissions	Deaths
January	301	59	29	4
February	423	90	26	4
March	655	130	39	9
April	621	174	16	2
May	391	86	6	2
June	336	75	8	1
July	314	66	40	4
August	190	42	8	...
September	139	27	6	3
October	93	20	5	3
November	51	7	3	...
December	152	23	1	...
Total	3,666	799	187	32

Nearly 50% of the total cases of Small-pox were admitted in the months of February, March and April with the peak figures in the month of March. Similarly, 50% of the total deaths due to Small-pox occurred in the same months but the peak figure was in the month of April. The lowest incidence was in the month of November with only 50 cases. This is the usual seasonal trend every year ; and this year is no exception. One should take advantage of this kind of seasonal variation and take enough and intensive prophylactic measures in the pre-epidemic months, namely October to December. Perhaps, this would minimise the incidence of Small-pox in the more favourable months to follow. Statement No. 4 shows the age and sex-war distribution of the cases as they are admitted into the Hospital and the Figure No. 3 diagrammatically represents the age-grouping of Small-pox patients.

Statement No. 4—Showing the age and sex-war distribution (irrespective of vaccinal status) of the cases of Small-pox admitted during the year 1961.

Age-groups	Males		Females		Total Males	Total Females	Grand Total
	City	Mofus-sil	City	Mofus-sil			
0 to 30 days ...	3	1	10	...	4	10	14
1 month to 6 months ...	68	2	75	...	70	75	145
7 months to 11 months ...	75	5	96	2	80	98	178
1 year to 5 years ...	486	19	411	16	505	427	932
6 years to 10 years ...	153	9	208	6	162	214	376
11 years to 20 years ...	322	13	339	16	335	355	690
21 years to 30 years ...	545	43	445	22	588	467	1,055
31 years to 40 years ...	156	10	121	11	166	132	298
41 years to 50 years ...	55	5	49	5	60	54	114
51 years and above ...	19	2	30	...	21	30	51
Total ...	1,882	109	1,784	78	1,991	1,862	3,853

It is evident from this that the maximum incidence of Small-pox is in adults and not in children under 5 years as one would imagine. Only 30% of the total cases occurred in children under 5 years. This shows that though we are not so perfect in protecting the children, yet it is not so bad when compared to the protection of adults. The Re-vaccination Programme does not seem to be so successful as it should be. The fact that 4% of the total number of cases have occurred in children under 6 months, shows that one should not wait till the age of 6 months to get the children vaccinated. Vaccination should be done preferably before the age of one month so that the child does not take any risk of exposure to Small-pox. 50% to 60% of cases died in this age-group and all these cases could have been saved had not the parents waited till the age of 6 months for vaccination.

Other Diseases

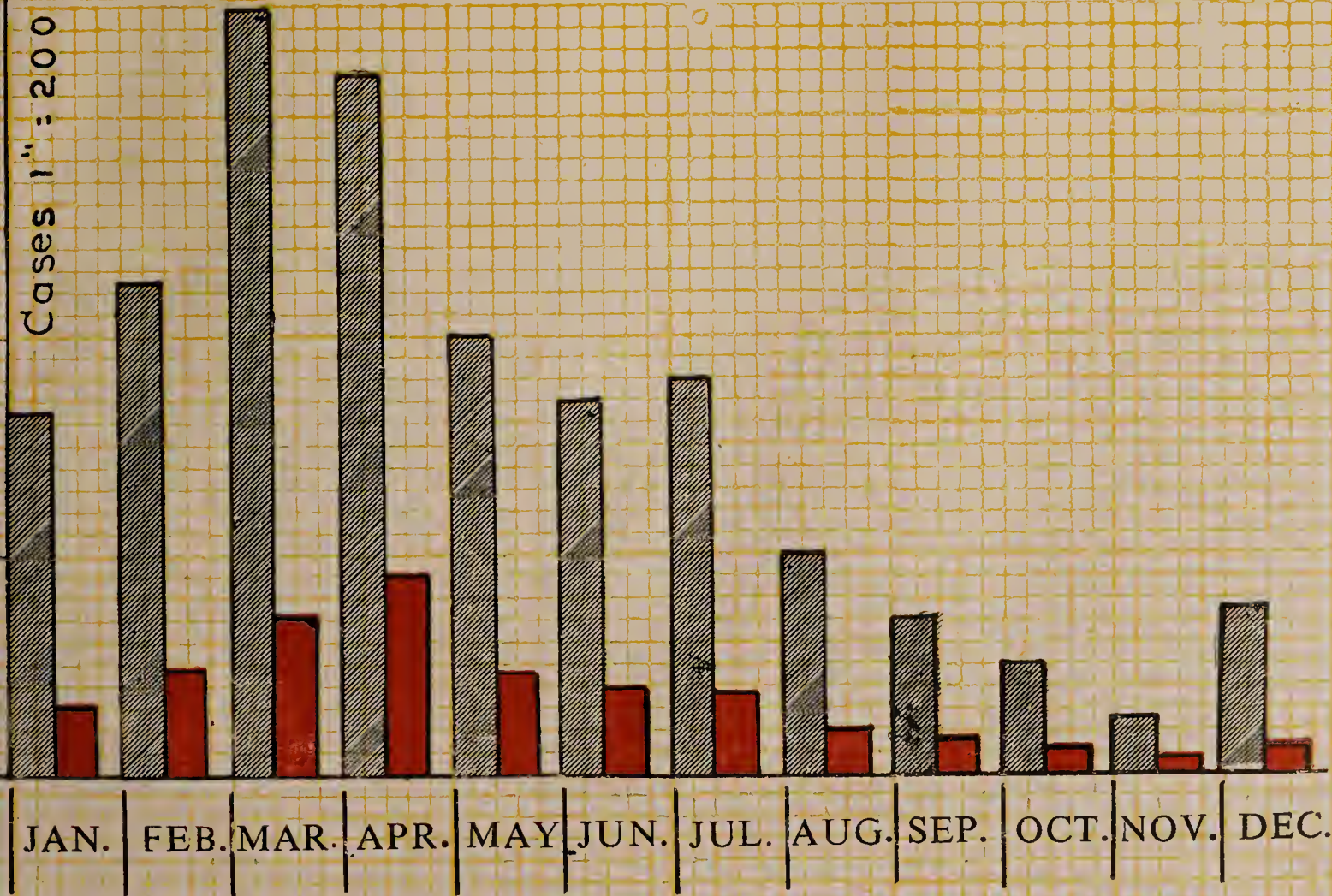
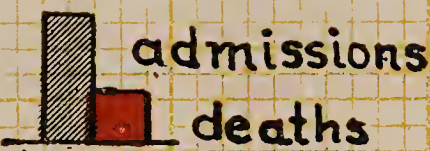
There were only 2,104 cases of admission due to Chicken-pox during this year as against the 3,949 in the previous year. There were 1,240 cases of Measles with 6 deaths as against 1,180 with 2 deaths in the previous year. There was no case of Cholera either from the City or Moffusil, though 634 were admitted as suspected cases but they proved negative for Cholera. Of these only one died, whereas in 1960 there were 19 deaths out of 614 non-Choleric Diarrhoeas. There was one death due to Mumps out of 236 cases admitted,

INFECTIOUS DISEASES HOSPITAL

TONDIARPET, MADRAS.

1961

Small Pox Admissions & Deaths



INFECTIOUS DISEASES HOSPITAL

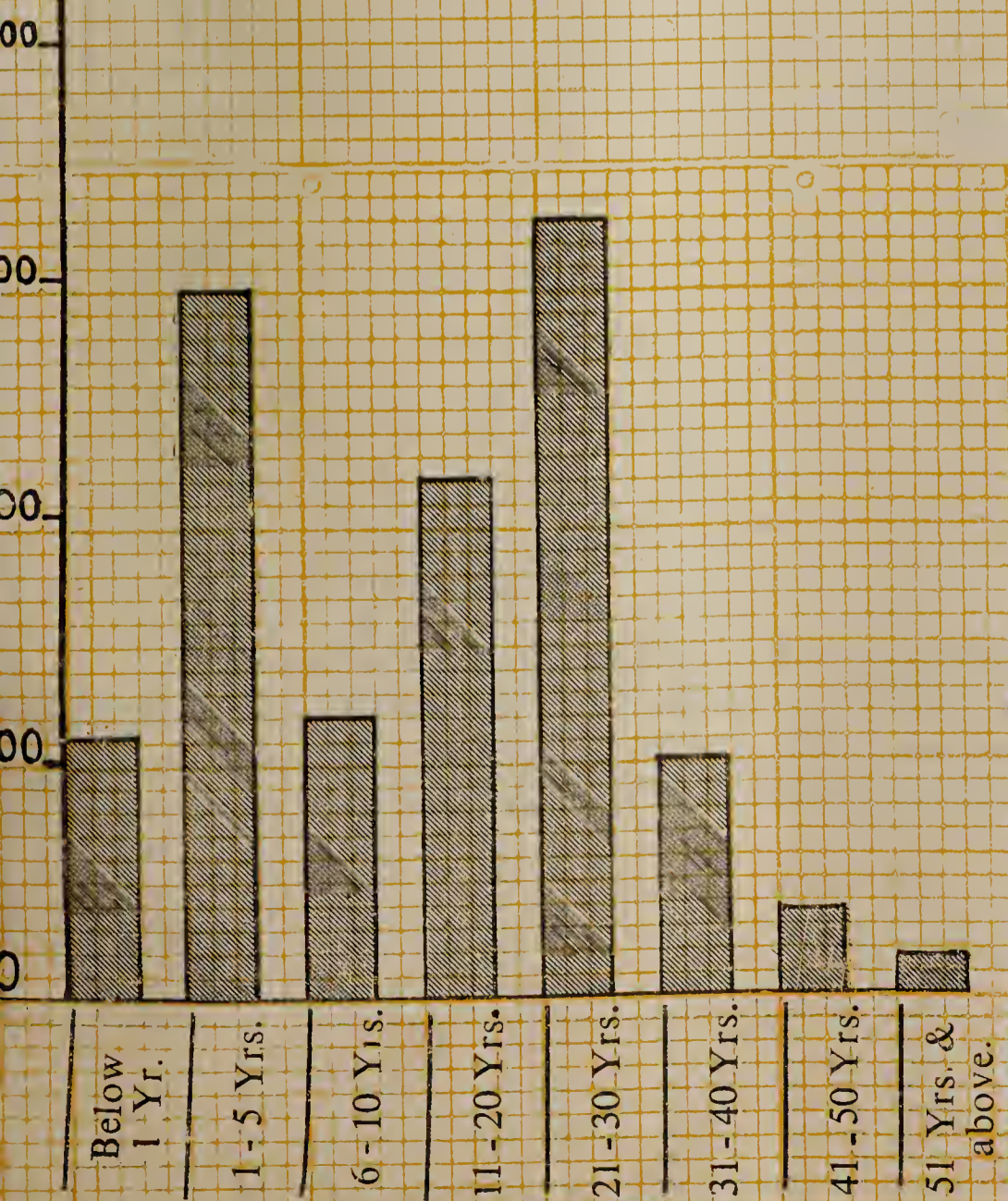
TONDIARPET, MADRAS.

1961

Smallpox Admissions

(CITY)

Age - Distribution



and this case was a pregnant woman who developed the complication of Meningo-Encephalitis due to Mumps Virus. 8 cases of Typhoid were treated in this Hospital and all of them were voluntary admissions, either for Diarrhoea or for suspected Small-pox. But all these cases bacteriologically proved to be cases of Typhoid and of these one died.

Ambulance Service

Two old ambulances were under repair and in their place the Mobile Medical Van of Ashok Vihar and the School Medical Van had to be used for removal of cases for the first two months. Bodies were built for the two Fargo Chassis purchased during the previous year for ambulance vans and they were put on the road in the months of February and March and these two together made 27,133 miles during the year. Out of the loan sanctioned by the Government, two more chassis (Jeep) were purchased and bodies were built up by the Corporation Workshop, and one of them was put on the road in the month of October and it has made 5,070 Kilometers by the end of the year. The Ambulance Service is absolutely free and it is available round the clock.

Improvements to the Hospital

Besides the loan of Rs. 2 lakhs, sanctioned in the previous year, the Government have been pleased to sanction a further loan of Rs. 2 lakhs for additional improvements to the Hospital. So far more than 2 lakhs have been appropriated and the works are under progress. The most important of these improvements is the construction of an up-to-date Virus-Cum-Bacteriological Laboratory. In the month of April, the foundation stone for this building was laid by the Hon'ble Minister for Health, Thiru Manickavelu and the building is almost complete. The World Health Organisation has sanctioned Research Grants to Dr. Kempe, Professor of Pediatrics, the University of Colorado Medical Centre, Denver, U.S.A., and Dr. Downie, Professor of Bacteriology, the University of Liverpool, England, and permitted them to utilise a sum of Rs. 30,000 during the current year for the purchase of necessary equipment for the Virus Section of the new laboratory under construction in this Hospital. The World Health Organization has further sanctioned enough funds to carry on research in Small-pox in this Hospital for a period of 3 years and the Superintendent of this Hospital will be in charge of the Research Unit.

Besides the Laboratory, other improvements to the Hospital include complete crow-proofing of all the wards, mosaic flooring of certain acute wards, construction of a separate Administration Block, conversion of the present office into Reception Room for patients with all the amenities such as Examination Rooms, Duty Medical Officers' Rooms and etc., which are lacking now construction of two Observation Wards and Separate Linen and Medical Store Rooms and Kitchen, etc. Estimates for all these works are ready and the work will be taken up shortly.

The Government of Madras, on the suggestion of the Superintendent have asked the Corporation of Madras, to put up proposals with necessary estimates for the construction of a modern Lecture Hall for giving lecture-demonstrations to the students of various Medical Colleges. This is a long-felt

need and at present for want of a lecture hall, the students are given lectures in one of the wards. The estimates were prepared for a Lecture Hall and Museum and submitted to Government and their orders are awaited.

Medical Training

As usual the under-graduate students from Madras, Stanley and Kilpauk Medical Colleges and the Mission Medical College at Vellore attended lectures in this Hospital. Altogether seven batches of students have been trained. Further, post-graduate students of the Upgraded Institute of Pediatrics, Madras, Post-graduate Schools of Nursing, Madras, Trivandrum and Delhi, the students from the Orientation Training Centre at Poonamallee, have had their training in this institution. Several batches of medical interneers from the Stanley and Kilpauk Medical Colleges, during their period of Public Health Interneeship had their postings in this Hospital.

Symposia

A novel feature of this year was that the Hospital started conducting symposia one each month on various diseases. There were three such, symposia and they were attended by not only the medical staff of the Corporation but also staff from the Government institutions like King Institute, Madras Medical College, etc. The three subjects discussed were Steptococcal Infections, Cholera and Measles.

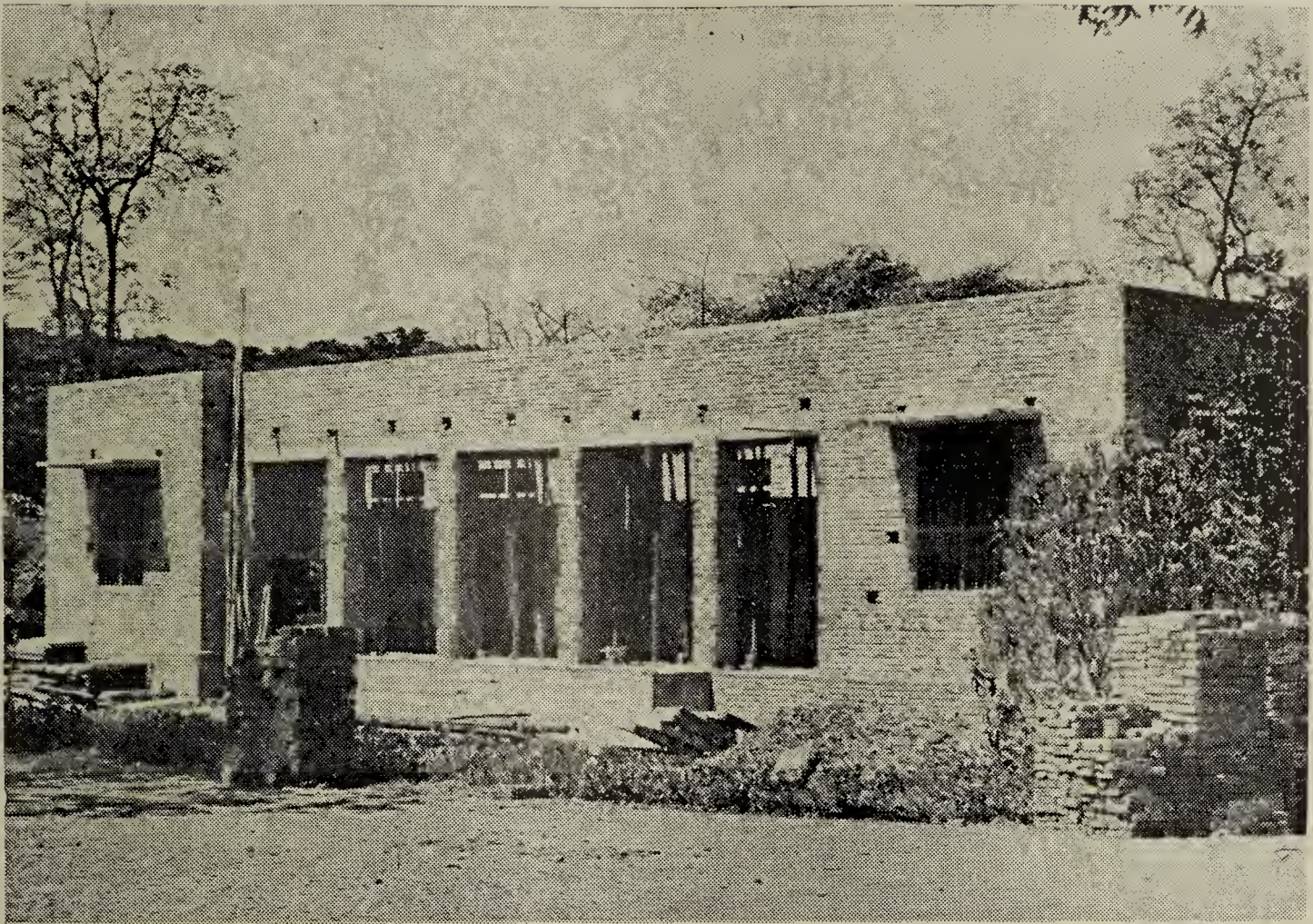
Research

The findings of the research study made in the year 1960 by the World Health Organization Research Team, consisting of Drs. Kempe, Downie Meikeljohn, Burge, Ramachandra Rao, Ratnakannan and (Mrs.) St. Vincent were published in the WORLD HEALTH ORGANIZATION BULLETIN in the form of five papers entitled —

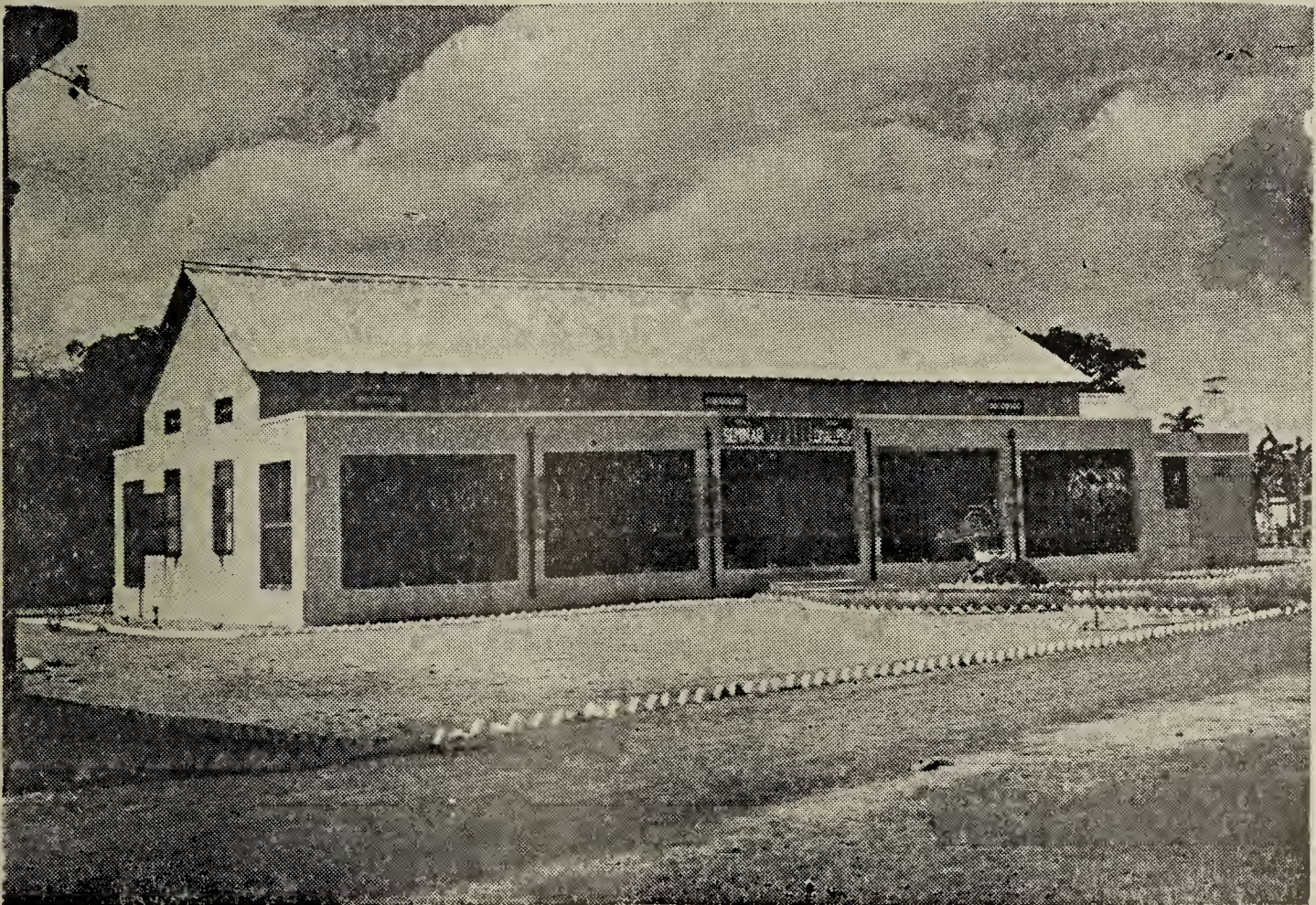
- (1) The use of Vaccinia Hyperimmune Gamma-Globulin in the Prophylaxis of Small-pox.
- (2) Studies on the Virus content of mouth washings in the acute phase of Small-pox.
- (3) Studies of Small-pox antibody levels of Sera from samples of the 'vaccinated' adults population of Madras.
- (4) Air sampling to recover Variola Virus in the environment of Small-pox Hospital.
- (5) Comparison of dried Vaccine with fresh Indian Buffalo-Calf Lymph in re-vaccination against Small-pox.

This is the first time that such important publications have been brought forth from this Hospital. This study has been considered so important that it has raised some new problems with reference to the epidemiology and control of Small-pox, which have to be solved, and the answers for which have an important role to play in our eradication programmes. Another papers entitled "A Study of 1,000 cases of Small-pox", was published by the medical staff of this Hospital. This paper was well reviewed by foreign experts on Small-pox in their journals and there was a great demand for the reprints of this paper from different countries all over the world.

Infectious Diseases Hospital.



The New Virus - Cum - Bacteriological Laboratory under Construction.



Crow Proofing of ward 4 done from the loan funds.

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VOLUME 11
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Miscellaneous

Among the distinguished visitors, who have visited the Hospital, were (1) Dr. O'Brien, Professor of Micro-Chemistry, University of Colorado Medical Centre, Denver, U.S.A., (2) Dr. Tomasic, the World Health Organization's Consultant on the Public Health Laboratories. They have recorded their appreciations of the Hospital and its administration in the Visitor's Book of this Hospital.

The Advisory Committee for the Infectious Diseases Hospital, constituted by the Corporation Council, met in the office of the Superintendent in the month of September with the Worshipful Mayor Thiru V. Munuswami in the Chair. Several problems, relating to the administration of the Hospital, were discussed and resolutions passed.

Dispensaries

One of the essential duties of the Health Administration is the provision of FREE MEDICAL AID to all the Citizens in the City. The City Corporation, under the control of its health department continued to maintain 48 general dispensaries and 8 Special Clinics in the City for rendering free treatment and valuable advice to all patients seeking their help. During the year under review a new dispensary was opened in 48th division at Sachidanandam Street, Kosapet (New) to offer medical facilities for the residents of the locality.

A Central Medical Store maintained at Chintadripet continued to supply Drugs, medicines, injections, and other requirements to all dispensaries. Besides this, the services of the Public Health Laboratory was also extended to them for analysing the specimens of blood, urine, etc., and intimating the results to the Medical Officers in-charge of the dispensaries for correct diagnosis and treatment of the diseases.

The 8 Special Clinics are mainly intended to provide facilities for treatment of specific diseases like Leprosy and Skin Diseases, Venereal Diseases and Tuberculosis, and to render help to the patients for hospitalization. They are located at the following places in the City and are manned by specialised medical men under the direct supervision of the City Health Officer.

<i>No.</i>	<i>Name of Clinic.</i>	<i>Location.</i>
1	Venereal Clinic	... At 82/83, Strahans Road, Perambur.
2	Leprosy & Skin Clinic	... At Ice House Road.
3	Do.	... At Vyasarpady.
4	Tuberculosis Clinic	... At Pulianthope High Road.
5	Do.	... At Government General Hospital.
6	Do.	... At Government Stanley Hospital.
7	Do.	... At Government Royapettah Hospital.
8	Do.	... At Government Kasturba Gandhi Hospital for Women and Children, Triplicane.

The Director, Government Tuberculosis Institute and Clinics continued to control the four Tuberculosis Clinics attached to the Government Hospitals which were provided with medicines, accommodation, etc., by Government. The establishment charges were as usual borne from the Corporation funds. The other four special clinics were under the management and direct control of the Health Officer.

Mobile Dispensary Service

In addition to the above dispensaries and special clinics, the two mobile dispensaries were also continued to serve the residents of the extended areas of the City. During the first half of the year the mobile dispensary service was dislocated to some extent due to condemnation of vans, but in the latter half, the services were rendered to the southern areas in the City. The Medical Officers in-charge of the Adyar and Kodambakkam dispensaries were carrying out the work successfully during the year. The poor people residing at Choolai medu, Namasivayapuram, Kodambakkam Cheri, Jaffarkhanpet, Alcot Kuppam, Vannanthurai, Kottur Chari, Zamin Adyar, Damodarapuram and Varadarajapuram, were able to avail of the services of the Mobile Dispensary during the year.

Skin and Leprosy Clinic, Ice House Road

The clinic situated at No. 1, Dr. Besant Road (Ice House) function from 7-30 a.m. to 1 p.m., on all working days of the week excepting Monday's (Holiday).

Staffs attached to the Clinic is as follows :—

- | | |
|--|----------|
| 1. Full time Paid Medical Officer | ... One. |
| 2. Qualified Health Visitor (Female) | ... One. |
| 3. Qualified Pharmacist | ... One. |
| 4. Male nursing orderley and Female nursing orderly. | |

881 cases of Hansens attended the Clinic during the year. Out of this 390 cases were newly recorded during the year.

4,110, New patients sought the opinion and advice of the clinic during the year. Out of them 390 were found to be Hansen cases and the rest were suffering from various other conditions. The total number of open cases diagnosed was 90.

27,955 old cases were attended to. The grand total of all patients who attended the clinic during the year was 32,065. The daily average attendance was 102.

348 children with skin lesions studying in various Corporation Schools were sent to the clinic for diagnosis and treatment. Out of this 76 children manifested definite signs of Leprosy and 77 children were kept under observation.

Medical Officer and Health Visitor visited the houses and advise was given regarding isolation and general Hygiene. Some of the contacts of infective patients were examined and suitable advise was given.

Statement A.

New Cases Treated			Total Cases Treated			Average Daily Attendance		
Male	Female	Children	Male	Female	Children	Male	Female	Children
1,060	890	2,160	14,604	7,701	5,650	50	27	25
	4,110			27,955			102	

Statement B—Diseases treated for the year 1961.

Leprosy	...	390
Non-Pulmonary T.B.	...	5
Syphilis	...	2
Filariasis	...	4
Vitamin deficiency states	...	69
Allergic Disorders	...	207
Scabies	...	2,397
Infection of Skin	...	1,009
Superficial Injuries	...	27
Total	...	4,110

Statement C —Total No. of Hansen cases attended during 1961.

Year of Registration	Male.	Female.	Children.	Total.
1956	91	40	3	134
1957	65	16	14	95
1958	61	11	10	82
1959	49	19	14	82
1960	56	27	15	98
1961	162	77	151	390
Total	484	190	207	881

Classification of Hansen Cases 1961.

L	N	N ? L	Total
85	300	5	390

Investigations.—282 Pathological investigations were done including 262 Skin smears. The services of Pathology Laboratory were utilised in carrying out the other investigations.

Hospitalisation.—During the year 15 cases which required hospitalisation were referred to Leprosy Department, Government General Hospital. I acknowledge my thanks to Dr. L. Ahamed, M.B., B.S., Medical Officer in-charge of Leprosy Department, General Hospital, who was kind enough to admit most of the cases and given them best of treatment.

Admission to Thirumani Sanatorium.—22 cases applied for admission into above sanatorium. 16 cases were recommended for admission.

Leprosy Clinic, Vyasarpady

20,702 patients were treated in this clinic during the calendar year ending 31st December 1961.

3,602 of these were new cases registered for treatment during this period. The new cases were made up of 344 cases of Leprosy, 214 of Scabies and 3,044 of other skin disease. Out of the 344 cases of Leprosy registered 70 were of the infective type and 274 of the non-infective type of the illness.

The average daily attendance for treatment during the year has been 66.

Regularity for treatment works upto 10% taking 50% attendance as regular.

4,552 dressings were done for ulcers of leprosy cases, mostly.

About 15 abscesses had to be opened and 10 cases of reaction treated during this period.

Apart from giving out-patient treatment with injections of Hydrocarpus oil and oral D.D.S. Tablets, new cases were advised to observe avoidance of intimate contact with children, and regular attendance for treatment, as practical preventive measures of the spread of the infection to a second generation. Avoidance of injuries incidental to normal activities of life by being careful in doing them and not neglecting them has been impressed on the patients as measures of prevention of deformity and disability.

The Health Visitor attached to the Clinic visits registered cases houses in the neighbourhood to ensure their regular attendance for treatment. The children in the houses of these patients were examined for detection of early cases so as to bring them under treatment at the vulnerable early stage of the illness. Survey of the population in the neighbourhood is carried out to detect new cases of the illness.

3,025 people were enumerated. 2,828 examined detecting 11 cases during this period in survey of the neighbouring localities.

Tuberculosis Clinic, Pulianthope

8,401 new patients sought the opinion and advice of the Clinic during the year 1961.

8,401 new cases were examined at the Clinic. Out of this 870 were found to be Pulmonary tuberculosis cases and 152 were found to be Non-Pulmonary tuberculosis cases. Total No. of T.B. cases diagnosed were 1,022.

Table A.—Showing the No. of cases examined and the No. of T.B. cases among them during the year 1961 :—

Year	...	1961
No. of cases examined	...	8,401
No. of cases diagnosed as P.T.	...	870
No. of cases diagnosed as Non-P.T.	...	152
Total diagnosed T.B.	...	1,022

Table B.—Showing the daily average attendance during the year 1961 :—

<i>Year.</i>		<i>Daily Average.</i>
1960	...	120
1961	...	124

Table C.

Year	...	1961
No. of Sputum examined	...	4,972
No. of Aspirations	...	6
No. of A.P.	...	...
No. of P.P. Refills	...	18
No. of contact examinations done	...	959
Remarks in contacts—		
P.T. I	...	8
P.T. II	...	2
P.T. III	...	13
Visits of Health Visitor—		
Nil abnormal	...	936
New	...	854
Old	...	254
Hospital discharged patients	...	328
Total	...	1,432
Radiography	...	1,387
Fluroscopy	...	9,170

Table D.—Attendance at the Clinic.

Male—		
New	...	3,416
Old	...	16,842
Female—		
New	...	2,962
Old	...	15,990
Male Child—		
New	...	1,044
Old	...	2,434
Female Child—		
New	...	979
Old	...	1,550
Total New	...	8,401
Total Old	...	36,816
Grand Total	...	45,217
Daily Average	...	124

Table E.

P.T. I	...	14
P.T. II	...	95
P.T. III	...	761
Total No. of P.T. cases	...	870
Non-Pulmonary T.B.	...	152
Coryzer	...	13
Influenza	...	11
Bronchitis	...	3,028
A.C. Bronchitis	...	3
Br. Asthma	...	778
Bronchetasis	...	18
Eosnophil Lung	...	22
Tonsilitis	...	127
Heart Disease	...	21
Diabets	...	...
Malaria	...	...
Kala Azar	...	...
Filariasis	...	...
Bronchiolatis	...	19
Pneumonia	...	3
Pleurisy	...	25
Wh. Cough	...	2
Exphasema	...	1
Other diseases	...	602
Nil abnormal	...	2,706
Total	...	8,401

Table F.—Positive cases according to places for the year 1961 :—

Year	1961
Pulianthope	103
Choolai	143
Kosapet	18
Perambur	82
Vyasarpady	34
Sembium	4
Ayanavaram	46
Total	430
Cases referred to T.B.I., Egmore	141
Cases referred to T.B.C., Govt. General Hospital	50
Cases referred to T.B.C., Govt. Stanley Hospital	86
Cases referred to T.B.C., Govt. Royapettah Hospital.	45
Cases from Mofussil	118
Grand Total	870

Table G.—Positive cases according to ages for the year 1961 :—

Year	...	1961
Years 0-5	...	32
„ 6-10	...	30
„ 11-15	...	30
„ 16-20	...	68
„ 21-25	...	87
„ 26-30	...	90
„ 31-35	...	106
„ 36-40	...	105
„ 41-45	...	83
„ 46-50	...	87
„ 51-55	...	49
„ 56-60	...	50
„ 60 and above	...	53
Total	...	870

Table H.—Nationality and Sex of the Positive Cases :—

Year	...	1961
Hindus	...	708
Muslims	...	115
Christians	...	47
Total	...	870
Male	...	410
Female	...	357
Children	...	103
Total	...	870

Table I.—Classification of positive cases according to occupation for the year 1961 :—

Total	...	870
Attenders	...	11
Peons	...	8
Watchmen	...	8
Time-keepers	...	4
Barbers	...	6
Beedi-workers	...	80
Businessmen	...	36
Electricians	...	4
Mechanics	...	1
Butler and Bakers	...	7
Printing	...	6
Clerks	...	65
Conductors	...	2
Coolies	...	112
Ryots	...	42

Total I.—Classification of Positive cases according to Occupation for the year 1961 :—*cont.*

Mill-workers	...	23
Drivers	...	2
Dhobies	...	5
M.F.S.	...	3
Fishermen	...	3
Police	...	8
Weavers	...	13
Goldsmiths	...	2
Teachers	...	6
Priests	...	11
Tailors	...	9
Merchants	...	40
Milkmen	...	27
Painters	...	3
Plumbers	...	15
Cobblers	...	20
Students	...	49
Sweepers	...	37
Doctors	...	...
Destitutes	...	14
House-wives	...	112
Un-employed	...	76

Table J.—Returns and statement for 1961 :—

No. of New Cases	...	8,401
No. of Open Cases	...	870
No. of Non-Pulmonary P.T.	...	152
Old Cases	...	36,816
A.P. Initials	...	...
A.P. Refills	...	...
Patients attending for A.P. Refills	...	...
No. of P.P. Initials	...	...
P.P. Refills	...	18
Patients attending for P.P. Refills	...	1
Injections	...	12,265
No. of cases visited in their houses by H.V.	...	1,432
No. of cases visited in their houses by M.O.	...	...
No. of contacts examined in the houses	...	...
No. of contacts examined in the clinic	...	959

Table K.—Type of Tuberculosis diseases treated for the year 1961 :—

Pulmonary Tuberculosis	...	870
Tuberculosis Glands	...	80
Osteo-Articular	...	13
Abdominal Enteritis	...	14

Intestines	...	5
Meningeal T.B.	...	12
Tuberculosis Skin	...	...
Genito Urinary Tuberculosis	...	...
Pleural without lung affection dry	...	48
Pleural without lung affection with effusion	...	20
Other forms of T.B.	...	13
Total	...	1,075

Table L.—Classification of Patients according to Income for 1961 :—

Rupees 5-10	...	25
„ 11-15	...	34
„ 16-20	...	47
„ 21-25	...	55
„ 26-30	...	81
„ 31-35	...	93
„ 36-40	...	93
„ 41-45	...	84
„ 46-50	...	81
„ 51-55	...	74
„ 56-60	...	53
„ 61-65	...	43
„ 66-70	...	29
„ 71-75	...	23
„ 76-80	...	16
„ 81-85	...	14
„ 86-90	...	11
„ 91-95	...	6
„ 96-100	...	4
„ 100 and above	...	4
Total	...	870

Table M.—Home visits by the Health Visitor and contact examination during the year 1961 :—

<i>Year.</i>	<i>Cases.</i>
1961	... 1,432

Table N.—Number of contacts examined at the Clinic at the instance of the Health Visitor during the year 1961 :—

<i>Year.</i>	<i>Cases.</i>
1961	... 959

**Chest Clinic (Tuberculosis), Government General Hospital,
Madras**

Chest Clinic (Tuberculosis) Government General Hospital, Madras functions daily between 2 and 5 p.m. except on Sundays at the out-patient department.

Staff.

Director of Tuberculosis Institute and Clinics, Chetpet, Madras.

One Medical Officer.

Two House Physicians (change every month).

Two Health Visitors.

One Staff Nurse.

One Clerk.

Facilities available.—Screening, X-Ray, Laboratories, etc. There is a ward of eighteen beds (12 for males and 6 for females) attached to the Clinic. Emergency cases of Pulmonary Tuberculosis like Haemoptysis, spontaneous pneumothorax, etc., were admitted to this ward.

Hours of work.—Daily routine 8 to 11 a.m. House visiting by Medical Officer and Health Visitors.

11 a.m. to 1 p.m.—Ward work by the Medical Officer and House Physicians. 2 to 5 p.m.—Out-patient work by Medical Officer and House Physicians. All the staff members attended regularly.

All cases coming to the out-patient department were registered their addresses noted, correctly and were examined thoroughly, screened, X-rayed and laboratory investigations were done. Diagnosis of Pulmonary Tuberculosis were made and their register was maintained. Treatment was advised and started. All cases fit for Sanatorium treatment were selected every week and shown to the Director on Thursdays and their names were put in the waiting list for admission to Government Tuberculosis Sanatorium, Tambaram. Waiting list register was maintained at the Government Tuberculosis Institute Chetput. Intimations for admission were sent direct to the patient by the Superintendent, Government T.B. Sanatorium, Tambaram as and when vacancies arise.

Some of the E.S.I. patients were also directed here to get opinion and advice for treatment. They were periodically sent here for check up and advice.

Total number of cases registered at the Clinic :—

Males	...	3,146
Females	...	1,364
Children	...	213
Total		4,723

Number of Pulmonary Tuberculosis cases in the above :—

P.T. I—

Males	...	11
Females	...	11
Children	...	...
Total		22

P.T. II—

Males	...	20
Females	...	7
Children	...	...

Total ... 27

P.T. III—

Males	...	529
Females	...	169
Children	...	1

Total ... 699

Number of open cases in the above ... 699

Number of Non-Pulmonary Tuberculosis cases :—

Cervical adenitis	...	8
T.B. Hip	...	...
T.B. Spine	...	...
T.B. Knee	...	...
Tuberculosis adenitis	...	...
Lupus	...	...

Number of Non-Tuberculosis cases :—

Not yet diagnosed	...	...
Pluresys with effusion	...	10
Eosinophilia	...	...
V.D.H.	...	...
Pneumonia	...	...
Asthma	...	...
Lung abscess	...	...
Bronchiatitis	...	...
Bronchitis	...	...

Total ... 18

Total number of old cases attended as out-patients :—

Males	...	14,000
Females	...	7,752
Children	...	637

Total ... 22,389

Daily average attendance ... 61

Number of in-patients treated :—

Males	...	435
Females	...	212

Treatment.—All new cases were physically examined and screened in addition to sputum and blood examination. X-ray chest was taken for diagnostic and treatment purpose. All acute cases got streptomycin 1 gm. I.M. daily with I.N.H. 200 mgms. daily for a month and were re-X-rayed to assess improvement. Suitable cases were put on the waiting list for admission to Tambaram Sanatorium. Collapse therapy was almost abandoned and only suitable cases were sometimes tried for A.P. Some cases returned to clinic for P.P. after discharge from sanatorium for continuance of P.P.

Emergency admission into T.B. ward were done by Casualty Officers Medical Officer (Chest Clinic) Tuberculosis and also some cases were transferred from medical units (if sputum positive) and their conditions did not permit for discharge to attend out-patient clinic. As soon as the emergencies were over, they were advised to attend to their respective clinics, where they were living.

Almost all patients belonging to the area of the clinic were given free antibiotics daily and some chronic patients got tablets every week.

Check-up for in-patients.—All patients discharged from T.B. Sanatorium residing in the surrounding area reported to the clinic for periodical check up which consisted of sputum and blood examination, X-ray chest and physical examination, etc. The period of check-up varied from 3 to 6 months depending on individual cases. This had helped in early detection of relapses and immediate institution of treatment.

Streptomycin.

Para Amino salicylic Acid (P.A.S.).

Isoticotine hydroxide (I.N.H.).

The drugs were widely used and were given free to poor patients as out-patient.

Collapse Therapy—

A.P. and P.P.

A.P.—Nil.

A.P. Refills—Nil.

No. of patients attended for A.P. refills—Nil.

Pneumoperitoneum—

Number of P.P. initial—Nil.

Number of P.P. Refills—24.

Number of patients attended P.P. Refills—15.

Contact examination.—Health Visitors and Medical Officer visited the houses of patients in the surrounding areas of the clinic :—

1. Chintadripet.
2. Periamet.
3. Park Town.
4. Edapalayam.
5. Trevelyan Basin.
6. Sowcarpet.
7. Kothwal Bazaar.
8. Kachaleswar Agraharam.
9. Napier Park.

Advices were given regarding isolation of patients and disposal of the sputum in the houses. All contacts were examined and screened and X-rayed if necessary. Some of the contacts were advised to have montous test for ruling out tuberculosis.

Advice in Family Planning was also given :—

Total number of houses visited by Medical Officer ...	450
Total number of houses visited by Health Visitors.	
First visit ...	487
Re-visits ...	705
Total ...	<u>1,192</u>

Number of contacts examined in the Clinic :—

Men ...	154
Women ...	121
Children ...	120
Total ...	<u>395</u>

Number of P.T. cases found among contacts :—

P.T. I—

Men ...	...
Women ...	1
Children ...	...
Total ...	<u>1</u>

P.T. II—

Men ...	2
Women ...	1
Children ...	1
Total ...	<u>4</u>

P.T. III—

Men ...	8
Women ...	2
Children ...	...
Grand Total ...	<u>10</u>

1961

1. Area covered by 23,572 square miles.	
No. of divisions catered ...	9
2. Population catered to ...	1,84,712
3. A. Number of new cases registered—	
Males ...	3,146
Females ...	1,364
Children ...	213
Total ...	<u>4,723</u>

B. Daily average attendance of New cases	...	13
4. Number of Pulmonary Tuberculosis cases	...	748
Positive	...	699
Negative	...	49
P.T. I—		
Males	...	11
Females	...	11
Children	...	...
Total	...	22
P.T. II—		
Males	...	20
Females	...	7
Children	...	...
Total	...	27
P.T. III—		
Males	...	529
Females	...	169
Children	...	1
Total	...	699
5. Number of Non-Pulmonary Tuberculosis cases	...	18
6. Number of Non-Tuberculosis cases	...	3,957
7. Number of old cases attended to the Clinic—	...	...
Males	...	14,000
Females	...	7,752
Children	...	637
Total	...	22,389
8. Daily average attendance, old cases	...	61
9. Total daily average attendance	...	74

Tuberculosis Clinic, Government Stanley Hospital, Madras.

Tuberculosis Clinic, Stanley Hospital, functioned between 1-30 and 5 p.m., on all days except Sundays. The staff consisted of a Medical Officer Two House Surgeons, Two Health Visitors, a Clerk, a Staff Nurse, a female Nursing Orderly and a male Nursing Orderly.

About 18 New cases and over 150 cases attended the Clinic every day. All new cases were registered, examined and screened the same day. Sputum examinations were done. All Pulmonary Tuberculosis cases suitable for, Sanatorium treatment were put in the waiting list for admission to T.B. Sanatorium, Tambaram by the Director every Monday and their register was maintained. Government Servants were placed in separate waiting list and were given priority for admission. Bilateral Pulmonary Tuberculosis cases were

given, Domiciliary treatment. As far as possible they were isolated in their homes and were looked after by the Health Visitors and the Medical Officer periodically.

Medical Officer and Health Visitors visited the houses of patients every working day between 8 to 11 a.m., and advice was given regarding isolation of patient, disposal of sputum, general hygiene, etc. Contacts of patients were brought to the Clinic for examination and were screened and advices were given regarding sanitation and hygiene. Contact cases which showed active lesion were also put in the waiting list and treatment started in the Clinic as out-patient.

In the Clinic collapse therapy was done on suitable cases anti-tubercular drugs like streptomycine, P.A.S. and I.N.H. were given to all poor patients. Two combinations (1) Streptomycin and I.N.H. (2) P.A.S. and I.N.H. were given.

Emergency cases of Pulmonary Tuberculosis like Haemoptysis, spontaneous Pneumothorax, etc., were admitted to the emergency ward attached to the Clinic. 6 beds were provided, three for males and three for females. Cases suitable for surgery were admitted direct to T.B. Sanatorium, Tambaram. Pregnant female patients were also admitted direct. Financial help from Bhavanagar Kshyaroga Fund were given to poor patients. 15 patients got the benefit.

Family Planning advice was given by the Health Visitors to female patients and were asked to attend the Family Planning Clinic.

Free supply of Milk by Co-operative for American Remittances to every where given to T.B. patients and their families. About 700 patients got the benefit.

	<i>Male</i>	<i>Female</i>	<i>Children</i>	<i>Total</i>
1. No. of new cases (including contacts)	3,037	1,746	631	5,414
	<i>Male P.T. I</i>	<i>Female P.T. II</i>	<i>Children P.T. III</i>	<i>Total</i>
2. No. of Pulmonary ...	279	1	2,044	2,324
3. No. of open cases in the above ...	...	...	...	2,044
4. No. of non-pulmonary tuberculosis ...	...	...	...	125
5. No. of non-tubercular cases.	...	...	...	3,604
6. No of old cases.				
Men			...	23,468
Women			...	18,093
Children			...	9,989
		<i>Total</i>	...	51,550

7.	No. of A.P. initials	...	Nil
8.	No. of A.P. Refills	...	Nil
9.	No. of P.P. Initials	...	Nil
10.	No. of patient attending for A.P. Refills	...	Nil
11.	No. of P.P. Refills	...	152
12.	No. of patients attending	...	215
13.	No. of injections given (Streptomycin, etc.)	...	46,600
14.	No. of screenings done	...	4,915
15.	No. of aspirations done	...	49
16.	No. of cases referred from other Clinics	...	254

Age and Sex group of cases diagnosed to suffering from Pulmonary Tuberculosis (including contacts year 1961).

Age	P.T. I		P.T. II		P.T. III		Total
	Male	Female	Male	Female	Male	Female	
1 to 6	15	14	48	34	
7 to 10	13	16	70	54	
11 to 15	15	18	139	86	
16 to 25	31	20	224	205	
26 to 35	20	28	222	195	
36 to 45	24	21	248	178	
46 and above.	26	16	200	141	
Total	144 + 135 = 279		1,151 + 893 = 2,044		

<i>Rupees</i>	<i>Income group.</i>	<i>No. of cases</i>
10 to 20	...	325
21 to 40	...	855
41 to 75	...	333
76 to 100	...	202
100 and above	...	109
No income	...	220
Total	...	2,044

<i>Occupation</i>	<i>Occupation group.</i>	<i>No. of cases</i>
Cooly	...	780
Ryot	...	285
Beedy Roller	...	262
Clerical	...	87
Mechanic	...	61
Business	...	107
Tailors	...	87
Weaver, etc.	...	83
N.G.O.	...	57
C.G.O.	...	36
Nil	...	199
Total	...	2,044

Preventive Side.

			<i>Last visit</i>	<i>Re- visit</i>	<i>Total</i>	
1.	No. of houses visited—					
	By Health Visitor	...	938	660	1,598	
	By Medical Officer	...	462	...	462	
2.	No. of contacts examined in the Clinic—					
	Men	...	...	...	300
	Women	...	...	...	433
	Children	...	...	...	411
			Total	...	1,144	
			<i>P.T. I</i>	<i>P.T. II</i>	<i>P.T. III</i>	<i>Total</i>
3.	No. of P.I. cases found among the contacts	...	33	...	50	83
4.	No. of cases tuberculin treated—					
	Tuberculin positive
	Tuberculin negative
	B.C.G. given
5.	Coverage so far in the current year—					
	Coverage so far from 1950
6.	Family Planning	194

Tuberculosis Clinic, Government Royapettah Hospital, Madras

Tuberculosis Clinic work covers an area of—15.2494 square miles.
(8 Divisions)

Population catered to—2,23,489 (according to last census).

Staff attached to the Clinic—

1. Medical Officer—One.
2. Qualified Health Visitors—Two.
3. Registration Clerk (Part-time)—One.
4. The T.B. Clinic takes the services of the staff attached to Government Royapettah Hospital, X-Ray Department and Clinical Laboratory for X-Raying and Laboratory examination respectively.
5. The Staff Nurse posted to the T.B. Ward is also posted to work in the Clinic in the afternoon.
6. The Male Nursing Orderly and Female Nursing Orderly posted to the Clinic are part-time workers who have other duties in the other departments of the Government Royapettah Hospital.

The work done by the T.B. Clinic staff may be summed up as follows :—

Main items

1. Content work.
2. Tuberculosis ward work (in-patient).
3. Tuberculosis Clinic work (out-patient).

1. *Contact work.*—Between 8 a.m. and 11 a.m. All contacts of open cases are queried at their homes and a thorough check up is given at the Clinic. For the year ending 1961, the number of new cases picked up (i.e., open cases) is 615 and the details of the contact coverage are mentioned in the attached sheets.

2. *Tuberculosis ward work (in-patient).*—P.T. cases grouped under emergency cases (i.e., having haemoptysis, dyspnoea from causes like spontaneous pneumothorax, Hydro-pneumothorax, Pleurisy with massive effusion, Empyema, Ascites, extensive bilateral lesion with dyspnoea and cases in a moribund state) are admitted in the T.B. ward attached to the Clinic and treated till the emergency is over. On discharge the patients are advised to attend their nearest T.B. Clinic.

Patients admitted in the T.B. Ward come through—

1. The Government T.B. Institute, Egmore, Madras.
2. The Government Royapettah Hospital, T.B. Clinic, Madras ; and
3. The Government Royapettah Hospital Casualty Department.

Bed Strength.—18 beds (sanctioned) and 6 extra. (Admission is only for men as there is no provision for women).

Working Hours.—12 a.m. to 1 p.m.

Number of emergency cases with P.T. admitted for the year 1961 is 410 ; Deaths—65.

3. *Tuberculosis Clinic.*—(Out-patient Department).

Working Hours.—2 p.m. to 5 p.m.

Though this Clinic is intended to cater to 8 divisions only, men patients from Triplicane are also examined and treated at this Clinic.

New patients coming by mistake or otherwise, from areas other than that pertaining to this Clinic, are also examined and referred to the respective Clinics in the City.

In addition cases referred by the other departments of the Government Royapettah Hospital are also examined at this Clinic :—

(1) No. of cases registered in the year 1961	...	3,167
(2) No. of P.T. cases among the new cases registered in the year 1961	...	716
(3) No. of Non-Pulmonary T.B. cases for the year 1961	...	73
(4) No. of non-T.B. cases in the year 1961	...	2,378
(5) Attendance—No. of old cases in 1961	...	28,024

(6) Daily average attendance of old cases	...	90
(7) Total daily average (old and new cases)	...	100

For the year 1961—

(a) A.P. Initials	...	Nil
(b) A.P. Refills	...	Nil
(c) No. of patients attending for A.P. Refill		Nil
(d) P.P. Initials	...	Nil
(e) P.P. Refills	...	289
(f) No. of patients who attended for P.P. Refill	...	17
(g) No. of aspirations done	...	12
(h) No. of screenings done	...	1,444 (no screening done in April & May 1961 as the screening plant was out of order.)
(i) No. of injections (Streptomycine, etc.)	...	6,540
(j) No. of cases referred from other Clinics.		70

From the statistics for the year 1961 it is seen that the incidence of Pulmonary Tuberculosis is at its zenith in the age group between 16 and 35 and in the same age group the incidence is highest in the Male sex.

Further, incidence of P.T. is highest in patients who fall in the group whose income varies from 21 to 40.

Further details are mentioned in separate sheets attached.

Remarks.—In considering the problems of control of Tuberculosis, three main things are to be borne in mind :—

- (a) The patients,
- (b) Their environmental factors ; and
- (c) Facilities for early detection and therapy.

The association between adverse social conditions with regard to nutrition, living standards, and working conditions is well known.

Improved housing conditions, leading to a reduction in the number, dosage and closeness of contact is an important factor in improving social conditions.

The Tuberculosis control movement revolves round the patient. He is the victim on whom the real burden of the diseases falls. It is the improvement of his plight and trying to keep others from undergoing his ordeal, that give meaning to control efforts.

Treatment cannot be said to be complete until the patient is ready to return to useful and satisfying living.

Raising the standard of living results in improved well being, improved housing, nutrition, cleanliness and sanitary conditions and the raising of the standard of education and general social security are factors which contribute to a decline in Tuberculosis.

These general measures help to a certain point.

But a regular Anti-tuberculosis campaign including the measure of protection of the uninfected population by inoculation with B.C.G. that contributes to help the decline in the incidence of Tuberculosis.

To divorce specific measures from general measures, will add to the difficulty in the control of Tuberculosis.

The patients attending this Clinic are really poor patients who fall in the occupation groups :—

- (a) Coolies,
- (b) Beedi rollers,
- (c) Tailors,
- (d) House wives ; and
- (e) The large group of unemployed whose standard of living is far below average.

Drug supply.—The drug supply to the patients attending this Clinic, is drawn from the Medical Stores attached to the Government Royapettah Hospital. The supply is steadily being stepped up with the rise in the number of patients attending the Clinic.

Sheets attached—

- (a) Clinical coverage in detail for the year 1961.
- (b) Age, sex, income, occupation-war, of cases diagnosed as P.T. for the year 1961.
- (c) Contact coverage for the year 1961.

1. Area covered—15.2494 square miles.
2. No. of divisions—8 divisions.
3. Population catered to—2,23,489 (according to last census).
4. No. of new cases registered—

Men	...	1,896
Women	...	924
Children	...	347

Total	...	3,167
-------	-----	-------

5. Daily average attendance of new cases ... 10

6. No. of Pulmonary Tuberculosis cases (New)—

Sputum Positive	...	615
Sputum Negative	...	101

Total	...	716
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P.T. I			P.T. II			P.T. III		
Men	Women	Children	Men	Women	Children	Men	Women	Children
26	10	4	33	22	6	493	120	2
7. No. of Non-pulmonary Tuberculosis cases						...	73	
8. No. of Non-Tuberculosis cases						...	2,378	
9. No. of old cases attended the Clinic—								
Men						...	17,862	
Women						...	9,080	
Children						...	1,082	
Total						...	28,024	
10. Daily average attendance of old cases						...	90	
11. Total daily average (new and old cases)						...	100	

Contact coverage for the year 1961.

1. Patients picked up (open cases)	...	615
2. House visited	...	459
3. Number queried at home	...	820
4. No. of contacts totally examined at the Clinic	...	800
5. No. found at the Clinic—		
P.T. I	...	13
P.T. II	...	6
P.T. III	...	12
6. Total No. of P.T. cases found among contacts	...	31

(Age, Sex groups of cases diagnosed to be suffering from Tuberculosis for the year 1961).

Age-group		P.T. I		P.T. II		P.T. III	
		Men	Women	Men	Women	Men	Women
1— 5	...	7	5	1	2	3	1
6—10	...	7	2	3	1	4	3
11—15	...	2	...	2	2	7	4
16—25	...	3	1	13	10	129	44
26—35	...	2	4	2	5	127	48
36—45	...	2	...	3	2	124	11
Above 45	...	5	...	11	4	101	9

Income groups of cases diagnosed to be suffering from Pulmonary Tuberculosis.

Income	No. of cases	Total
Rs. 1—9	10	615
„ 10—20	56	
„ 21—40	308	
„ 41—75	161	
„ 76—100	47	
„ above 100	23	

Occupation group

Tinker	...	1	Gardeners	...	4
Milkman	...	6	Pensioners	...	9
Businessmen	...	19	Beedi rollers	...	35
Painters	...	9	Coolies	...	238
Messenger	...	1	Astrologers	...	4
Clerks	...	21	Salesmen	...	2
Carpenters	...	15	Mechanics	...	15
Police Constables	...	8	Artists	...	2
Tailors	...	38	Drivers	...	13
Sweepers	...	7	Weavers	...	10
Goldsmiths	...	1	Masons	...	15
Housewives	...	9	Ryots	...	34
Cashiers	...	10	Peons	...	19
Fishermen	...	12	Teachers	...	11
Dhobies	...	5	Unemployed	...	22
Cobblers	...	3	Cooks	...	6
Bankers	...	8	Electricians	...	2
Grand Total	...	174	+	441	=615

T.B. Clinic at Kasturba Gandhi Hospital for Women and Children, Triplicane, Madras.

The T.B. Clinic attached to the above hospital functions on all days except Sunday from 2 p.m. to 5 p.m. Triplicane, Zam Bazaar, Pudupakkam Thiruvateeswaranpet, Mount Road, Chepauk, Mirsapat and Krishnampet are under the jurisdiction of this Clinic. Only women and children are treated and contact case are examined. Male contacts are screened and if found positive are referred to General or Royapettah Hospital.

The Director, Tuberculosis Institute supervises the Clinic once a week and puts deserving aptients suffering from Pulmonary Tuberculosis on waiting list for admission into the Government Tuberculosis Sanatorium, Tambaram. A pecially trained doctor and an house surgeon attend the patients and also examine the in-patients when requested by the Ward Doctor and give necessary advice. The doctor and a Health Visitor visits the aptients in their homes and give them necessary advice regarding the disposal of sputum, contact examination, attending the hospital regularly, health, etc. When patients of this area happen to visit other Clinics they are referred back to this Clinic. The Health Visitor visits them and advises them to visit this Clinic. The Clinic functions only as an out-patient department.

The year under review 2,173 new patients attended the Clinic. 361 cases were diagnosed to be suffering from pulmonary tuberculosis, out of which 100 cases were put on waiting list for admission into the Sanatorium, Tambaram. All clinical examination are being done in the hospital, Clinical Laboratory, screening and X-Ray apparatus is made use of. Most of the patients are P.T. III cases, majority of them being between the ages of 16 to 25 years, their income being between Rs. 21 to Rs. 40 and their occupation house wife.

Deserving patients are receiving money from the Bhavanagar Fund. They are paid Rs. 10 per month for a period of six months.

Curative—

		<i>Men</i>	<i>Women</i>	<i>Children</i>	<i>Total</i>
1. No. of new cases (including contacts)	...	23	1,537	613	2173
		<i>P.T. I</i>	<i>P.T. II</i>	<i>P.T. III</i>	<i>Total</i>
2. (i) No. of Pulmonary Tuberculosis cases—					
Women	...	20	51	246	}
Children	...	21	10	13	
No. of cases belonging to this area			...	232	
No. of cases belonging to other areas			...	115	
No. of cases from mofussil			...	14	
(ii) Pleurisy—					
Dry			...	4	
With effusion			...	17	
(iii) Others			...	Nil	
3. No. of open cases in the above			...	103	
4. No. of non-pulmonary tuberculosis cases			...	129	
(i) Glands (Lymphatic)			...	116	
(ii) Osteoarticular (excluding late affection)			...	3	
(iii) Meningeal (including C.N.S.)			...	...
(iv) Abdominal			...	10	
(v) Skin (including subcutaneous cellular tissue)			...	...
(vi) Of genite urinary system			...	...
(vii) Others			...	...
5. No. of Non-Tuberculosis cases			...	1,662	92
		<i>Women</i>	<i>Children</i>	<i>Total,</i>	
6. No. of old cases	...	14,585	2,456	17,042	
7 to 12. A.P. and P.P.	...	Nil			
13. No. of injections given—					
Streptomycin	...	3,600			
Other injections	...	2,400			
14. No. of screenings done	...	2,355			
15. No. of aspirations done	...	2			
*5. No. of Non-Tuberculosis cases.					

Respiratory System—

Influenza	...	2
Upper respiratory cattarh	21	
Laryngitis	...	2
Tonsilitis	...	28

Digestive System—

Pharyngitis	...	...
Dysentery	...	...
Diarrhoea	...	29
Chr. Diarrhoea	...	2

Respiratory System—

Bronchitis	...	414
Chronic Bronchitis	...	...
Bronchial Asthma	...	131
Eosinophilia	...	16
Bronchiectasis	...	40
Cystic Lung	...	5
Broncho Pneumonia	...	10
Lung abscess	...	4
Pneumonitis	...	2
Whooping cough	...	1

Cardiovascular system—

Valvular disease of the heart	...	44
Hypertension	...	2
Anamia	...	15

Total ... 61

Digestive System—

Constipation	...	...
Nut oedema	...	3
Dyspepsia	...	67
Worms	...	...

Other diseases—

P.U.O.	...	74
Debility	...	93
Pyelitis	...	Nil
Myalgia	...	129
Surgical	...	24
Gynaec	...	23
Fibrositis	...	1
Neyritis	...	1

1,184

Contacts ... 478

Total ... 1,662

Preventive—

16. No. of cases referred from other clinics	...	98
17. No. of houses visited	...	480

		<i>First visit</i>	<i>Re-visit</i>	<i>Total</i>
By the Health Visitor	...	183	296	479
By the Medical Officer	...	440	...	440
18. No. of contacts examined in the Clinic—				
Men	...	23		
Women	...	136		
Children	...	319		
Total	...	478		
19. Family planning No. advised	...	72		

Contact Work—

1. Patients picked up	...	343
2. Houses visited	...	343
3. No. queried at their homes	...	1,029
4. No. of contacts totally examined in the Clinic	...	478

		<i>P.T. I</i>	<i>P.T. II</i>	<i>T.P. III</i>
5. No. found P.T. among the contacts—				
Women	...	1	...	2
Children	...	4	4	7
6. Total No. of P.T. found among the contacts	...	18		

Age, Sex, Income and Occupation Groups among patients suffering from Pulmonary Tuberculosis for the year 1961.

Age and Sex Group—

<i>Age</i>		<i>Females</i>			<i>Total</i>
		<i>P.T. I</i>	<i>P.T. II</i>	<i>P.T. III</i>	
1 to 5	...	14	9	10	33
6 to 10	...	7	1	3	11
11 to 15	...	1	5	8	14
16 to 25	...	8	20	96	124
26 to 35	...	5	17	82	104
36 to 45	...	5	7	37	49
46 and above	...	1	2	23	26
Total	...	41	61	259	361

Income and Occupation Group—

<i>Income</i>			<i>Occupation</i>		
<i>Rupees</i>	<i>No. of cases</i>		<i>Type</i>	<i>No. of cases</i>	
10 to 20	...	35	Housewife	...	281
21 to 40	...	187	Nil occupation	...	40
41 to 75	...	87	Student	...	20
76 to 100	...	18	Ryot	...	...
100 and above	...	27	Servant	...	12
Nil income	...	7	Weaver	...	...
			Beedi maker	...	...
			Teacher	...	1
			Sweeper	...	...
			Nurse	...	6
			Clerk	...	1
Total	...	361	Total	...	361

1. Area covered by 6 divisions ... 2.885 sq. miles.
2. Population catered to ... 1,79,303.

3. No. of new cases registered—

Women	...	1,537
Children	...	613
Men	...	23

Total	...	2,173
-------	-----	-------

(b) Daily average attendance of new cases

6

		<i>P.T. I</i>	<i>P.T. II</i>	<i>P.T. III</i>	<i>Total</i>
4. No. of P. T. cases—					
Women	...	20	51	246	} 361
Children	...	21	10	13	
Sputum positive cases	...	103			
5. No. of Non-Pulmonary Tuberculosis cases	...	129			
6. No. of Non-Tuberculosis cases.		1,662			

		<i>Women</i>	<i>Children</i>	<i>Total</i>
7. No. of old cases attended	...	14,586	2,456	17,042
(b) Daily average attendance of old cases	...	47		
8. Total daily average attendance	...	53		

Area covered by the Clinic, showing the number, names of the divisions, population of each division and total population :—

	<i>Division</i>	<i>Area</i>	<i>Population</i>
1.	Pudupakkam	... .2238 sq. miles.	28,672
2.	Thiruvateeswaranpet	... 1.0499 „	30,363
3.	Chepauk	... .2997 „	24,267
4.	Triplicane	... .1760 „	26,777
5.	Zam Bazaar	... .1391 „	25,044
6.	Mirsahibpet	... .7000 „	44,180
	Total	... 2.5885 „	1,79,303

MEDICAL INSPECTION

During the year 1961 school inspection was carried out by four Medical Inspectors during the first eight months and three Medical Inspectors in the latter four months and by three Medical Inspectresses during the whole year. Dr. B. L. N. Raj was succeeded by Dr. R. Narayanan as Chief Medical Inspector in June 1961. Dr. Sayeed retired on August 15th but this place remained unfilled owing to shortage of Medical Officers. As usual the complement was insufficient to cope with the increased work for the following reasons, (1) number of schools and children had increased, (2) Medical Inspectors were posted frequently on relieving duties, and (3) vacancy caused by retirement of one of the Officers remained unfilled.

The number of schools was 305 but only 85 schools were inspected. The types and number of Corporation schools are given below :—

1. Higher Elementary Schools	...	66
2. Elementary Schools	...	183
3. Feeder Schools	...	8
4. Basic Schools	...	9
5. Urdu Boys Schools	...	21
6. Urdu Girls Schools	...	18
Total		305

In addition there are two high schools maintained by the Corporation.

Like the previous year there was only one school medical van which took children of South Madras to skin clinics for examination and treatment and for B.C.G. vaccination. In addition the van took the children with defective vision of all schools to Royapettah Hospital, Eye Department and Ophthalmic Hospital.

During the year 9,575 boys and 10,821 girls were examined of whom 6,028 boys and 5,557 girls were found defective. The more important features observed are given below —

Malnutrition.—691 boys (7.21%) and 1,780 girls (16.44%) were found under this group. They were treated with shark liver oil and calcium lactas for a period of 90 days and improvement was noticed. 1,233 boys and 1,344 girls who were suffering from stomatitis were given yeast tablets. 381 boys and 122 girls were found to be suffering from rickets and 294 boys and 567 girls from other types of vitamin deficiency.

Medical Treatment.—1,700 boys and 2,251 girls were treated in their schools ; and 450 boys and 402 girls were referred to Corporation dispensaries. 483 boys and 783 girls were referred to Government hospital.

Revisits.—170 visits were paid and 5,474 boys and 4,860 girls examined.

Infectious and Contagious Diseases.—567 boys and 857 girls were suffering from these diseases. Of these 491 boys and 530 girls were having scabies and were treated with medicines supplied by medical Stores. Devoigmented patches

were found in 233 boys and 114 girls. Of these cases which were referred to skin clinic 76 were found to be suffering from Hansen's disease and were treated. 76 cases are under observation. Details of other diseases are given in the accompanying statistical forms.

Co-operation of Teachers.—There was good co-operation by the staff of various schools inspected towards identification of defects and treatment. First aid was administered by teachers with medicine supplied from the medical stores.

School Sanitation.—Defects of schools with special reference to sanitation, water-supply, play ground facilities, etc., were pointed out and suggestions made for remedy of the defects.

Medical examination of Thozhilalies.—1,248 men and 86 women workers of all the departments of the Corporation were examined for physical fitness or invalidation during the year.

Other Activities.—Cooked corn and wheat meal were fed to 20 children each in Ambedkar Nagar, C.E.S., and the result tabulated. The corn meal was distributed to 20 children from 13-10-1961 to 22-11-1961 and wheat meal from 13-10-1961 to 11-12-1961. No appreciable improvement was noticed, and this may be attributed to reluctance of the children to articles other than the variety they are normally accustomed to. Milk was distributed towards the end of October to 15,000 children of the Corporation Schools. The milk was a donation from the Catholic Relief Fund.

Supply of Spectacles.—204 children were sent to Ophthalmic Hospital and the eye department of Royapettah Hospital from the end of September to beginning of November 1961. 19 children were prescribed spectacles and these were ordered from S. V. S. Davey & Sons at a cost of Rs. 115 and distributed to the children in January 1962.

The following articles were distributed to the Headmasters of Corporation Schools from the school Medical Stores :—

1. Shark Liver oil.
2. Calcium lactate powder.
3. Mist Iron Tonic.
4. Yeast Tablets.
5. Tr. Iodine.
6. Tr. Benzoin.
7. Sulphur ointment.
8. Zinc ointment.
9. Boric ointment.
10. Cotton.
11. Bandage.
12. Gauze.
13. Glycerine carbolic ear drops.
14. Mandle's solution.
15. Glycerine Borax.
16. Argyrol eye drops.

MIDDAY MEAL SCHEME.

This Pioneer scheme of the Madras Corporation was first introduced during the year 1925 for feeding 500 pupils in the Corporation schools. Preparation of meals and other distribution to the schools in covering vans under hygienic condition were transferred to the Health Department in the year 1947. 3,000 pupils of the Corporation schools were provided with midday meals from the three Corporation Midday Meals Centres in the City located at Gopalpuram in the South, Chintadripet in the Centre and Basin Bridge in the North. On all the school working days gradually meals were increased and during the year 1957 this scheme was re-organised by changing the menu supplying four kinds of meals each one daily, which was more palatable and of nutritive value.

1. Mondays	...	Rice and Sambar.
2. Tuesdays	...	Curd Rice.
3. Wednesdays	...	Tamarind Rice.
4. Thursdays	...	Kathambam.
5. Fridays	...	Rice and Sambar.

During the year 33,953 meals were supplied as per the data given below :—

Midday Meal Centre (North Range)	...	11,906	110 Schools.
Midday Meal Centre (Central Range)	...	10,342	103 „
Midday Meal Centre (South Range)	...	11,705	97 „
Total	...	<u>33,953</u>	<u>310</u>

There has been a gradual increase in the Midday Meals, supplied to poor children studying in Corporation schools as shown below :—

<i>Year</i>	<i>No. of meals supplied per day</i>
1947	8,000
1948	... 8,000
1949	... 8,000
1950	... 8,000
1951	... 8,000
1952	... 8,000
1953	... 10,000
1954	... 11,000
1955	... 12,000
1956	... 13,000
1957	... 18,000
1958	... 28,730
1959	... 28,730
1960	... 33,895
1961	... 33,953

Besides the main work of supplying Midday Meals to Corporation School children, the centres came to the rescue of the victims of Flood and Fire who were rendered homeless by preparing and supplying meals.

This year 9,254 cases of 54 lbs. each of milk powder, have been received from Catholic Relief Services, New Delhi and the same was used for the supply of reconstituted milk to all the children of all Corporation schools on all working days and also to supply curd rice for the 33,953 children twice a week.

Apart from this 500 cases of De-hydrogenated vegetable each weighing of 36 (lbs.) were received and used for the preparation of midday meals daily. The above two items were donated by the Catholic Relief Services, N.C.W.C.

The names of the Distinguished visitors from various parts of world who visited the centres are given below :—

1. Kannal T. Shoen, Faculty of Home Science, M.S. University of Baroda.
2. Sri P. Kasabu, Educationalist of Northern Lane.
3. Sri B. S. Batial, Officer in Gt. Duty, Maharashtra State.
4. Belen H. Abren, Manila, Philipines.
5. Mathia E. Marley, Director of India, Catholic Relief Service W.C.
6. Dr. Boon Sswaranasan, Bankkok.
7. Florence R. Farm, Home Science W.C.C., Professor Trained in Canada.

Copy of some of the visitors of remarks to the Midday Meals Centres are enclosed herewith.

This was an appropriate day to visit your South Range Centre. Being *St. Valentinos Day*, I found a heart of a several heart of a school meal programme. It will be a pleasure for us to help the Corporation and its devoted officials to extend this marvellous work.

(Sd.) SONNAGGEM,
Pro. Director of India Catholic
Relief Service, N.C.W.C.

(True copy)

It is a pleasure to visit the South Range again and to see its continued fine performance. The staff takes a real interest and gridle in all pleasure of the work and are doing a very commendable job. CARE is happy to be able to further their efforts and to congratulate them. Mr. Srinivasa Naicker and all of his staff deserve credit.

(Sd.) T. DONIS,
Asst. Director of CARE in India.

8—3—1961.

(True copy)

MILK DISTRIBUTION SCHEME

The Catholic Relief Services, National Catholic Welfare Conference have allotted to the Corporation 9,254 cases of milk powder aggregating to 4,99,716 bls. is for utilisation in the Madras Corporation School Feeding Programme in the mid June, 1961.

The Council in its Resolution No. 110/61, has sanctioned a sum of Rs. 1,50,390 for the purchase of 2 Food Vans and other utensils for implementation of said Milk Feeding Programme.

In order to reconstitute the Milk, the Ayanavaram Milk Supply Union has been entrusted with the work as the Corporation is not having sufficient facilities to take up the work departmentally. The Ayanavaram Milk Supply Union is able to manufacture only a limited quantity of 2,500 gallons per day and only half of the number of schools is being supplied with this available quantity of reconstituted milk. So, for the rest of the schools, boilers and Dubarahs have been distributed for reconstituting the milk out of the milk powder given to them at their respective schools.

The milk feeding programme was inaugurated by the Hon'ble Srimathy Lourdammal Simon, Minister for Local Administration, on 19-10-1961 and children studying in 39 Corporation schools have been benefited by this scheme up to end of December, 1961.

PUBLIC HEALTH LABORATORY

This institution was started in the year 1946 with the aim of providing laboratory facilities to the Medical Institutions run by the Corporation, so as to make the diagnosis and treatment of diseases more scientific. Subsequently it was permitted to cater to the needs of the private practitioners of the City and their clients, etc. The charges levied for the testing the samples of Blood, Urine, Motion, Smears, etc., etc., are very nominal, so as to be within the reach of the even a poor man. This laboratory is primarily intended for service to the public and to help such of the patients who cannot afford to pay the rates of a private laboratory.

This laboratory is under the charge and efficient care of the Pathologist Kumari Dr. Shantha Arogyadoss, M.D., D.G.O., who had the Post-Graduate training in U.S.A. She is ably assisted by Dr. M. Anantharam, M.B.B.S., Senior Assistant, Dr. Mrs. Sharada Bai, M.B.B.S., Mr. M. C. Arunachalam, B.Sc., Assistant Bio-Chemist and Mr. T. Srinivasan, Senior Technician and three other Technicians, 8 Attenders, 2 Peons and a Sweeper (whole time). She has been improving the laboratory to keep it up-to-date in equipment apparatus and in techniques adopted; and she is trying her best to keep the laboratory on a par with the foreign laboratories in all respects as far as possible.

It may be mentioned here once again for the information of the Public and Private Medical Practitioners as well Corporation Medical institutions, that this laboratory undertakes almost all examinations namely—Clinico-Pathological, Bacteriological, Serological and Bio-Chemical analysis, etc. The rates

charged are very competitive. The examination of sputum for Acid fast bacilli and the throat swabs for C. Diphtheria, etc., are done free of cost with a view to encourage the public to have these tests done without any hesitation. This laboratory offers a scientific approach to the public as well to private practitioners, and it is for them to avail themselves of these laboratory facilities provided by the Corporation of Madras.

STATEMENT No. I

Showing the Progress of the Laboratory since 1946

<i>Year</i>		<i>Number of samples examined</i>	<i>Receipts</i>	
			<i>Rs.</i>	<i>nP.</i>
1946	...	311	215	00
1947	...	1,492	647	00
1948	...	5,642	1,635	00
1949	...	12,266	4,766	00
1950	...	16,346	10,939	00
1951	...	19,005	11,234	00
1952	...	33,089	11,560	75
1953	...	34,310	18,649	75
1954	...	43,072	22,336	50
1955	...	43,955	24,118	50
1956	...	44,569	24,334	50
1957	...	47,368	22,409	25
1958	...	44,337	24,304	50
1959	...	46,183	27,251	50
1960	...	48,286	31,103	25
1961	...	52,883	36,419	50

It is evident from the above statement that year after year the laboratory is becoming increasingly popular and the number of samples tested are steadily on the increase. It is gratifying to note that the staff of the Corporation Medical Institutions are evencing great interests and are taking full advantage of the facilities provided and thereby treating their patients more scientifically. About 50% of the specimens tested at the laboratory are from the Corporation institutions.

STATEMENT No. II

Statement showing the details of specimens received from the Private Practitioners, various Clinics, Dispensaries, Child Welfare Centres, Corporation of Madras during the year under review :

<i>Private Practitioners</i>	<i>Corporation Institutions</i>			<i>Total</i>
	<i>C.W.C.</i>	<i>Dispensaries</i>	<i>Clinics</i>	
29,994	17,245	2,974	2,670	52,883

STATEMENT No. III

Showing the total number of various specimens received during the year.

<i>Blood</i>	<i>Sputum</i>	<i>Urine</i>	<i>Motion</i>	<i>Bio-Chemical</i>	<i>Others</i>	<i>Total</i>
41,138	2,250	3,707	4,026	1,289	473	52,883

During the year, the laboratory handled 52,883 specimens. The statement above shows the nature of specimens and the number of each kind of specimen examined during the year.

The laboratory has undertaken routine screening of blood of pregnant women who attend the Anti-natal Clinics of the Child Welfare Scheme. Now the routine screening of the blood for 20 centres was done. During the year under review 17,184 mothers had their blood tested and out of that 627 cases were positive. Syphilis not only affects the termination of pregnancy but the child born of syphilitic parents will congenitally acquire the diseases and it will be a great thing if this is detected before the child is born and the mother treated to prevent the child from infection with the disease. With this ideas, this scheme is put into operation and the laboratory is equipped with field survey units donated by UNICEF in the year 1951, which is of great use in working out the scheme.

STATEMENT No. IV

Showing the details of pregnant women examined for V. D. diagnosed and treated with the P.A.M. used.

<i>New Cases</i>	<i>Old Cases</i>	<i>New Treated</i>	<i>Old Treated</i>	<i>Total Treated</i>	<i>Total Attendance</i>	<i>P.A.M. used</i>
627	285	219	268	487	17,184	5,630 c.c.

STATEMENT No. V

Showing the quantity of P.A.M. purchased from local market and issued to the centres and the closing balance during the year.

<i>Opening Balance</i>	<i>Receipts</i>	<i>Total</i>	<i>Issue</i>	<i>Closing Balance</i>
1,032 Vails	Nil.	1,032 Vails	588 Vails	444 Vails

STATEMENT No. VI

Showing the details of Serology Test conducted during the year for the Private Practitioners and Child Welfare Centres, Corporation of Madras.

<i>Sources</i>		<i>No. of positive</i>	<i>No. of negative</i>	<i>Total</i>
Child Welfare Centres	...	650	16,295	16,945
Private Practitioners	...	171	2,271	2,442

Bio-Chemical work done during the year 1961.—The Bio-Chemistry Section of the Laboratory has been functioning from the year 1958.

STATEMENT No. VII

Showing the details of various kind examination of Bio-Chemical Analysis done during the year and the progress of the work year after year.

<i>No.</i>	<i>Nature of examinations</i>		1959	1960	1961
1	Acid Phosphatase	...	1	3	3
2	Alkaline Phosphatase	...	...	4	19
3	Blood Sugar	...	159	235	354
4	Blood Cholestrol	...	32	120	205
5	Blood Urea	...	68	88	200
6	Blood Fibrinogen	...	...	1	...
7	Blood Chlorides	...	...	1	2
8	C. S. F.	...	52	35	102
9	Fractional Test Meal	...	13	43	41
10	Glucose Tolarence Test	...	56	97	118
11	Icteric Index	...	5	28	33
12	Non-Protein Nitrogen	...	...	8	10
13	Prothrombin Time	...	9	5	21
14	Serum Calcium	...	10	6	9

STATEMENT No. VII—*cont.*

No.	Nature of examinations	1959	1960	1961
15	Serum Bilurubin ...	...	5	13
16	Serum Proteins ...	6	46	81
17	Thymol Turbidity ...	2	14	30
18	Urea Clearance ...	7	12	6
19	Vanden Burgh Test ...	3	16	41
20	Serum Phosphorous ...	...	...	6
Total ...		<u>423</u>	<u>767</u>	<u>1,294</u>

The amount collected towards the fees for the Bio-Chemical Analysis done this year was Rs. 6,933-50 nP.

Fees at the scheduled rates for the examination of specimens for the clinical tests of Serological, Bacteriological, Clinical Pathological Tests are as follows :—

Scheduled Rates

	Rs. nP.
1. Blood ordinary examination counts, etc. each.	1 00
2. Blood Agglutination tests (Widal) ...	2 00
3. Blood Culture for Enteric groups ...	2 00
4. Blood for V.D.R.L. Tests ...	2 00
5. Blood for Kahn tests ...	2 00
6. Blood quantitative V.D.R.L. Test ...	2 00
7. Blood Sedimentation rate ...	1 00
8. Motion culture ...	2 00
9. Motion Microscope examination (Routine) ...	1 00
10. Urine for quantitative examination ...	1 00
11. Urine for qualitative examination ...	1 50
12. Other smear for G.C. examination, etc. ...	1 00
13. Skin smear for Hansens examination ...	1 00
14. Semen examination for Spermatzoa ...	1 00
15. Semen Complete Examination ...	4 00
16. Blood Vandenberg Test ...	1 00
17. Blood for Gel Test ...	1 00
18. Blood for Chopra Test ...	1 00
19. Bleeding time ...	1 00
20. Coagulation time ...	1 00
21. Platelet count ...	1 00
22. Other materials sent by the Private doctors (each) ...	1 00

Fee for Bio-Chemical Analysis

1.	Blood Sugar	...	3	00
2.	Glucose Tolerance Test	...	12	00
3.	Fractional Test Meal Analysis	...	20	00
4.	C. S. F. for Proteins	} for all three tests	18	00
5.	C. S. F. for Sugar			
6.	C. S. F. for Chloride			
7.	C. S. F. for Globulin	...	2	00
8.	Vendenberg quantitative	...	6	00
9.	Icteric Index	...	2	50
10.	Serum Total proteins, Albumen, Globulin	...	12	00
11.	Serum Alkaline Phosphatase	...	8	00
12.	Serum Calcium	...	6	00
13.	Serum Phosphorus	...	6	00
14.	Serum Acid Phosphatase	...	8	00
15.	Thymol turbidity	...	5	00
16.	Prothrombin time	...	5	00
17.	Blood Chloride	...	6	00
18.	Urine Chloride	...	6	00
19.	Serum Cholesterol	...	6	00
20.	Urea Clearance Test	...	11	00
21.	Blood Urea	...	6	00
22.	Non-Protein Nitrogen	...	8	00
23.	Blood Fibrinogen	...	8	00
24.	Quantitative estimation of any other content not mentioned above except 17 Keto steroide	...	8	00

However testing of samples taken from the Corporation employees drawing a salary less than Rs. 300 and their dependents is done free of charge.

Specimen received from Corporation institutions also are charged at the scheduled rate for the Bio-Chemical Analysis only.

The laboratory works from 10-30 a.m. to 5 p.m., and specimens are received from 10-30 a.m. to 12 noon only. But during the year, the number of specimen sent to the laboratory for analysis seems to have increased to such an extent that we have to limit the examinations for the day only for the specimens received at 10-30 a.m. itself (i.e.) when we start the work for the day. Appointment for examination of blood specimens, etc., etc., can be fixed previously at the laboratory during the working hours, i.e., 10-30 a.m. to 5 p.m. for the convenience of the public. This is the only A grade laboratory in the City of Madras maintained by the Corporation of Madras with the up to date equipments and apparatus for doing the laboratory investigations on various type of examinations. Specimens from I.D.H.T. for the investigation for 'Cholera', etc., are examined in our laboratory. During the year, the total number of specimens examined was 433 for cholera and all the cases were negative.

During the year under review the building for housing the Bio-Chemistry Section has been under construction and it is expected to be completed early in 1962.

PUBLIC ANALYST LABORATORY

The year under report has recorded further improvement in the efforts of the Corporation to put down adulteration. The percentage of adulteration of food articles sold in the City has, therefore, fallen to 24.4% from the previous year's level of 28.7%.

Following the preliminary investigations completed during 1960, coloured food-stuffs and artificial dye-stuffs used in them were taken for analysis. A large consignment of tea dust artificially coloured reddish-brown with a mixture of coal-tar dyes was seized and destroyed. Similarly, huge stocks of an orange yellow coal-tar colour sold under the popular name of "Kesari Powder" for use in colouring foods and drinks were seized and destroyed as the article, on analysis, proved to be a prohibited coal-tar colour not listed under Rule 28 (Part VI).

Efforts were intensified to put a stop to the evil practice of colouring turmeric with an yellow poisonous inorganic pigment, Lead Chromate. A special drive against the sale of such coloured turmeric in all its forms, irrespective of its use internally or externally, has succeeded in bringing down the adulteration considerably. Tackling the problem at the wholesale or manufacturers level, as it is done now, is expected to yield an even better and permanent result.

During the year 1961, the total number of samples analysed by the Public Analyst's Laboratory was 7,567. The number of samples taken under the Prevention of Food Adulteration Act, 1954 was 7,163; the remaining 404 were taken informally for analysis.

Of the 7,163 samples, 5,412 were genuine and 1,751 only were adulterated. The percentage of adulterated samples was 24.4 as against 28.7 during 1960. A perusal of Statement It will convince that, omitting the items of milk and "other articles", the average degree of adulteration in ghee, butter, oils and coffee is well below 10%. Though the figure of 38.5% for milk is lower than the average of 42.7% for the preceding quinquennium, for any further rapid and appreciable improvement in the value, the production of milk must improve. The demand for milk from the consuming public of the City is too heavy on the slender resources available locally. Hotels consume the major share of the fresh and natural milk arriving for sale into the City.

Naturally, the temptation to water milk freely to meet the demand from the public, and thus earn an easy profit becomes too irresistible to the unscrupulous vendors engaged in this lucrative trade. This observation is supported by the fact that in nearly 900 samples out of the 1,460 found adulterated, the amount of added water was on an average 23% which yields him enough profit to pay off the fines once in way without any pain. The only remedy lies, therefore, in the milk trade in the City being taken over by a Milk Board or organized institutions like the Government Milk Scheme or Co-operative Unions as early as possible.

The details regarding the various articles of food analysed during the year 1961 are given below.

Milk.—This perfect and most nutritious article of food, invaluable to human beings, especially invalids and children, lends itself easily to adulteration as stated earlier. Addition of water and removal of fat content, both of which, while yielding rich profit, need very negligible investment by the milk adulterators. The loss to the purse and health of the consuming public, however, is rather serious, who can realize only a fraction of the worth of their money paid. Keeping this important aspect in mind, the number of milk samples has been consistently kept at a high level of more than 50% of the total number of samples analysed every year. The total number of milk samples taken during the year was 3,793.

<i>Description</i>	<i>Number of samples</i>			<i>Adulteration caused</i>		
	<i>Analysed</i>	<i>Genuine</i>	<i>Adulterated</i>	<i>By addition of water</i>	<i>Due to fat deficiency</i>	<i>By both added water and fat deficiency</i>
Cow's milk ...	1,784	1,097	687	585	47	55
Buffalo's Milk ...	1,400	969	431	374	14	43
Mixture of Cow's and Buffalo's Milk ...	594	262	332	314	3	15
Total ...	3,778	2,328	1,450	1,273	64	113

For the 1,097 genuine samples of cow's milk, the average values of fat was 5.5 per cent and milk solids other than milk fat was 9.1 per cent ; while for the 969 samples of buffalo's milk, the corresponding values were 7.5 per cent and 9.8 per cent.

Among the adulterated samples, the average per cent of added water was 22.6%, the minimum and maximum limits being 4% and 73% respectively. But in about a third of the total number of 1,450, the added water was not more than 15% ; and in about 530 samples of the balance, the added water ranged from 16% to 35%.

The average value for fat deficiency was 29.5%, the range lying between 6% and 97% ; but in a third of the total number of samples the deficiency falling between 16% to 25%.

The remaining fifteen milk samples not included in the statement given above consisted of : 1 described as goat's milk, 1 as goat's and buffalo's milk 1 as goat's and cow's milk, 1 as cow's, buffalo's and goat's milk, 2 as powder milk, 1 as skimmed milk ; and of the remaining eight, 6 were declared as pasteurised milk and 2 as 'milk' without any indication as to their source. Of these, excepting the five samples out of the six described as pasteurised milk, the rest ten were all adulterated with added water. The two samples of milk

prepared by mixing watered milk with skimmed milk reconstituted from skim milk powder, and sold as ' powder milk ' were deficient in fat besides containing added water.

Butter.—553 samples were analysed ; 488 were genuine and 65 adulterated. In 57 of the 65 adulterated samples, the water content ranged from 18.9% to 63.1% (average working up to 36%) exceeding thus the maximum limit prescribed under the Prevention of Food Adulteration Rules. Amongst these 57, fat other than milk-fat had been incorporated in 24 samples in addition to excess water. The remaining 8 samples, though they had water within the statutory limit, had to be certified as adulterated as they contained fat other than milk-fat. The extent of adulteration with foreign fat in the case of the 32 samples ranged from 13% to 46% giving the average value of 21.9%.

Ghee.—Only 46 samples out of the 672 analysed proved to be adulterated. 42 of these samples were adulterated with fat other than milk fat, the most commonly used fat for such adulteration being Vanaspati (hydrogenated Vegetable oils). Adulteration ranged from 8% to 100% average being 69.9%. Four samples were condemned as adulterated as they contained free fatty acids exceeding the permissible maximum of 3% calculated as Oleic Acid. Average value of acidity for these 4 samples came to 6.6% expressed as Oleic Acid, rendering them unfit for consumption due to such high deterioration in their quality.

Edible Oils

<i>Description.</i>	<i>No. of samples analysed</i>	<i>No. of samples declared</i>	
		<i>Genuine</i>	<i>Adulterated</i>
Gingelly oil ...	988	916	72
Groundnut oil ...	169	155	14
Cocoanut oil ...	354	349	5
Total ...	1,511	1,420	91

Amongst the adulterated gingelly oil samples, 54 contained groundnut oil ranging from 5% to 90%. In five other cases, the adulteration was complete substitution with groundnut oil and selling the stuff " misbranded " as gingelly oil. Six of these 54 samples contained in addition excess free fatty acids. Twelve samples of gingelly oil, which did not contain any admixture with other oils were, however, declared adulterated due to the presence of excess free fatty acids ranging from 1.3% to 5.9% indicative of high deterioration in their quality. (The maximum limit for free fatty acids being 3 per cent calculated as oleic acid). One sample contained both Arachis oil and Niger seed oil as adulterants.

The 14 samples of groundnut oil declared as such to the Food Inspectors were adulterated with gingelly oil, presumably to be palmed off on the public as gingelly oil.

The number of samples of cocoanut oil analysed continued to be kept up at a high level, nearly three times higher than in 1956, with a view to keeping in check its adulteration with mineral oil, a cheap and harmful adulterant. Only one case of such adulteration with 10% mineral oil was recorded this year ; in 4 other cases, the adulterant was the cheaper groundnut oil only the percentage ranging from 10% to 50%.

Coffee.—18 of the 265 samples analysed were certified as adulterated 8 contained preparation of Bengal-gram to the extent of 5 to 35 per cent, 6 samples had been admixed to the extent of 5 to 75 per cent with a preparation of Bengal-gram and Date-seed and 1 consisted of a mixture of coffee with date seed alone.

In the case of three samples, which consisted of a mixture of coffee and chicory, the labels did not declare the composition as prescribed under Rule 42, thereby, committing the offence of “misbranding” (Section 2 (ix) of the Act).

Tea.—71 samples were analysed. Six of them were found to be adulterated as they had been coloured artificially with reddish brown prohibited coal-tar colour preparation. Two of these contained, in addition, a foreign husk resembling black-gram husk. Most of the samples taken from the several vendors in the City turned out to be genuine. So a sudden raid was launched on a wholesale dealer of the City suspected to be exporting coloured tea to other places in the State ; and 120 lbs. of these samples found to be adulterated and coloured were seized and destroyed.

Ghee substitutes.—Ninety samples were taken and analysed and all were genuine.

Other articles.—208 samples were analysed and 65 were found to be adulterated. The details are given below.

Turmeric.—On account of the increase in adulteration revealed during 1960, the total number of samples analysed during 1961 was increased further. No varieties of turmeric, powdered or whole, irrespective of their sale for use internally or externally, were exempted from sampling. It has been found that out of the 69 samples analysed only 13 were adulterated as they contained Lead to the extent of 55 to 275 parts per million parts of the sample (Lead content should not exceed 2.5 parts per million). One of the powder samples contained in addition extraneous starch and chillies. Sampling is being continued at the increased rate to discourage the habit of coating of Turmeric with the yellow Lead Salt.

Thoor Dhall.—The practice of colouring dhalls artificially, and that, too, with a prohibited coal-tar colour, has been on the increase. 34 samples out of the 78 examined were declared adulterated since they contained an yellowish orange colouring matter.

Chillies powder.—Six samples were analysed and all were adulterated as they had been admixed with cheap adulterants of various kinds, namely, starch, turmeric powder and powdered bran.

Honey.—Of the 10 samples analysed, six were adulterated. The samples consisted of either cane sugar syrup or artificial invert sugar solutions, both coloured artificially with prohibited coal-tar colours, to simulate genuine honey.

Arrowroot.—The starches of *Curcuma angustifolia* (East Indian Arrowroot) and *Maranta arundinacea*, both of which are nowadays grown in India, have been recognized as ‘Arrowroot’ under the Rules. Still adulteration of

this diet article has not disappeared. Eleven samples were analysed. Three consisted of the starch of tapioca entirely, one was Maranta Starch mixed with tapioca to the extent of 20%, the remaining seven were genuine. (2 of Curcuma and 5 of Maranta).

Maida, Atta and Suji.—The six samples of suji taken were found to be genuine; of the 27 samples of wheat flour (maida), two were adulterated as they were heavily insect-infested and analytically below standard.

Food colours.—Under Rule 28 of the Prevention of Food Adulteration Rules, only the listed thirteen colours (Rule 28, Part VI) are permitted for use in food; and that, too, only in certain classes of food articles mentioned in the succeeding rule. On analysis, it was found that the usual orange colour powder sold by many under the common name of Kesari powder for colouring foods and drinks consisted of a prohibited coal-tar dyestuff not covered by the Rule 28. A total quantity of about 10 kilograms of some popular varieties of this unlisted coal-tar colour was seized and destroyed during this year.

The services of the Public Analyst were availed of by the various other departments of the Corporation and several public and private institutions also for the analysis of varieties of informal samples at the laboratory. 404 samples were thus analysed and reported upon during 1961. 285 of these informal samples were taken from the Madras Co-operative Milk Supply Union in order to check the purity of their milk supply intended for distribution in the City.

The details regarding these 404 samples are given hereunder :—

<i>Source</i>	<i>Nature of the article</i>	<i>No.</i>	<i>Report of analysis</i>
Madras Co-operative Milk Supply Union, Ayanavaram.	Pasteurised Milk	... 284	All were genuine.
Health Department	Milk	... 1	Contained 8% added water.
Do.	Rice (Tendered for Midday Meal distributions).	14	Graded according to their quality.
Do.	Gift Rice	... 1	Unfit for human consumption.
Do.	Thoovar Dhall (Tendered for Midday Meals Centre).	4	Graded according to their quality.
Do.	Coal-tar dyes intended to be used on food.	7	All prohibited for use in food.
Do.	Turmeric	... 4	Graded according to their quality.
Do.	Thoovar Dhall husk.	1	Below accepted standard.
Do.	Mixture Carminativa.	1	Below standard.
Food Inspectors	Rice	... 8	Fit for use.
Do.	Blackgram	... 3	Free from artificial colouring.
Do.	Butter	... 1	Adulterated (49% excess water and 19% foreign fat).

<i>Source</i>	<i>Nature of the article</i>	<i>No.</i>	<i>Report of analysis</i>
Superintendent, Infectious Diseases Hospital, Tondiarpet.	Cow's Milk	...	1 Adulterated.
Do.	Coffee Powder	...	1 Genuine.
Superintendent, Special Home.	Gingelly Oil	...	1 Do.
Do.	Thoovar Dhall	...	2 One reported to have been coloured artificially.
Do.	Curry Powder	...	4 Genuine.
Superintendent, Mid-day Meals Centre.	Refined edible and vegetable oil.	2	100% refined groundnut oil.
Revenue Department.	Dulux Thinner	...	1—Opinion offered for
	Pre-treatment Chemical.	1—	classification, under Municipal Licensing Rules.
Electrical Department.	Transformer oils	...	51 Reported on organic and inorganic acidity.
Works Department, General Stores.	Soapnut Powder (Tender samples).	5	Three were adulterated with foreign matter.
City Police Department.	Yellow corn meal	...	1 Unfit for use.
Triplicane Urban Co-operative Society.	Wheat	...	1 Unfit for human consumption.
Government Dairy Project, Veterinary Superintendent, Madhavaram Milk Colony.	Sulphuric Acid	...	1 Reported on quality for use.
Special Officer, Madhavaram Milk Colony.	Milk	...	1 Genuine.
Government Milk Factory, Teynampet.	Milk	...	2 Bad in quality.
		Total ...	404

Thiru S. Sundaram, M.A., was the Public Analyst for the City of Madras during 1961 except while he was on earned leave (from 20-4-61 to 30-5-61) the Senior Assistant, Thiru R. Ramalingam, officiated as the Public Analyst.

The rest of the Laboratory staff was as follows :—

Senior Assistants—

Thiru R. Ramalingam, M.Sc.

„ V. Venkataramana Rao, B.Sc. (Hons.), M.Sc.

Junior Assistants—

Thiru C. Rajaganapati, B.Sc.

„ R. Mohan Rajan, B.Sc. (on leave since 17-2-61).

„ C. Sambandam, B.Sc. (on leave from 27-7-61 to 25-8-61).

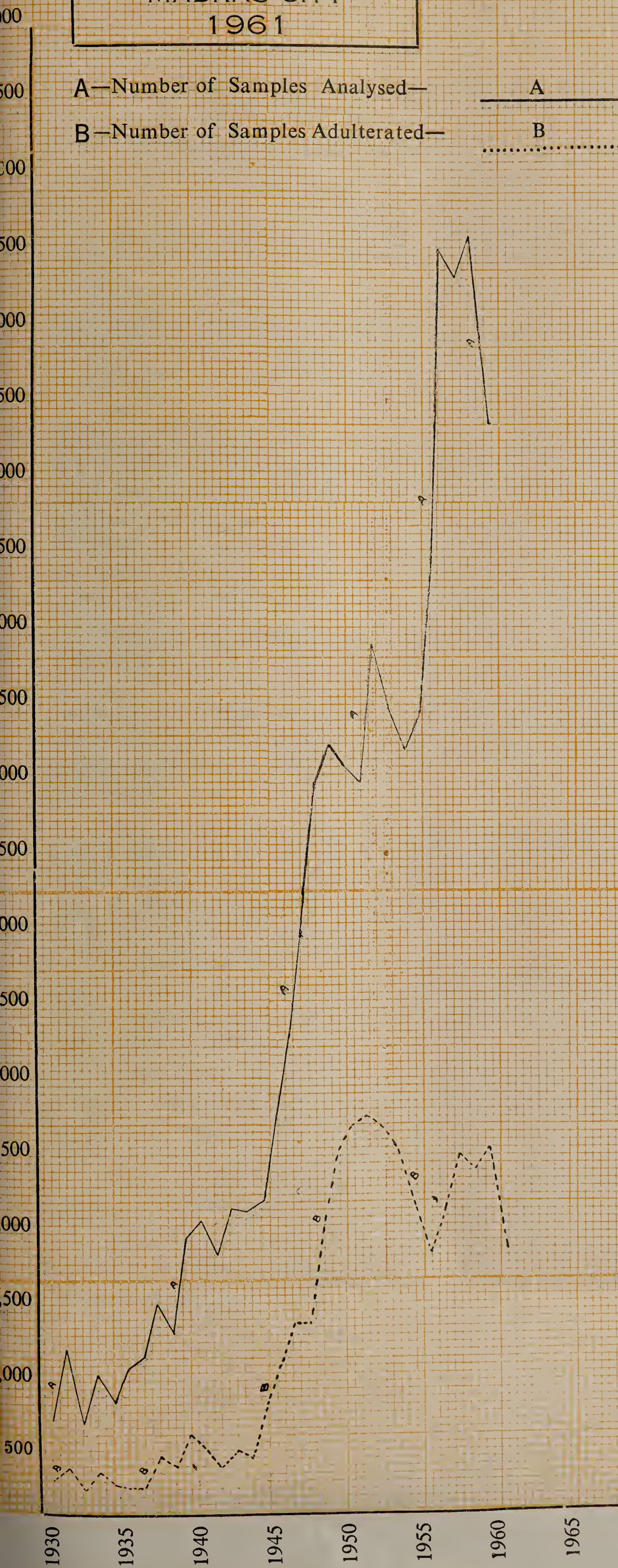
PUBLIC ANALYST
LABORATORY.
-MADRAS CITY-
1961

A—Number of Samples Analysed—

A

B—Number of Samples Adulterated—

B



Thirumathi V. J. Rani Bhasker Rao, B.Sc. (Hons.) (on leave from 2-2-61 to 16-4-61).

Thiru M. G. Swami, B.Sc.

„ M. A. Hameed, B.Sc. (appointed on 24-11-61).

The other assistants also were on leave for shorter periods which accounted for a total of four months besides the duration mentioned above.

A tabular statement of the action taken in respect of the samples taken during 1961 and certified as adulterated by the P.A., and those of the previous years since 1954 pending disposal on 1st January, 1961 is given in the appendix (Food Analysis—Statement No. II).

The number of samples certified as adulterated during the year under report was 1,751 out of which 103 samples were only very slightly adulterated and, therefore, no prosecutions were instituted against them. In the remaining 1,648 cases prosecuted, convictions were obtained in 389 cases ; 3 ended in acquittals, one case was dismissed and in another the party was admonished by the Court. In a case of seizure of a prohibited coal-tar colour, the stuff weighing about 10 kilograms and worth Rs. 140 approximately was destroyed to prevent its being used in food.

Prosecutions relating to 4,461 samples of the previous years certified as adulterated by the P.A. were pending disposal on 1st January, 1961. During the year, 719 of these were convicted, 3 were warned and 3 admonished by the Courts, leaving 3,713 cases still pending disposal on 1st January, 1962. About 120 lbs. of a particular brand of tea dust worth Rs. 360 approximately were seized and destroyed as, on analysis, it was found to be coloured with a prohibited coal-tar colour.

The total number of convictions obtained during 1961 was 1,108 against 1,131 in 1960. The total amount of fines imposed on these came to Rs. 88,340 in 1961 compared to Rs. 54,555 during 1960. The average fine per conviction being Rs. 80 in 1961 and Rs. 48 in 1960. The maximum fine recorded was Rs. 500 in 4 cases, while the minimum was as low as Rs. 10 in 3 cases.

In three cases, the accused were convicted and sentenced to undergo imprisonment for selling adulterated milk ; two of the vendors were awarded rigorous imprisonment for 6 months and 2 months ; and the third, simple imprisonment for 4 weeks.

Under Section 16 (i) (b) of the Prevention of Food Adulteration Act, preventing the authorized Food Inspector from taking samples, is an offence for which one vendor of milk and another of oil were convicted and fined Rs. 100 each.

By way of fees for analysis, the Laboratory collected Rs. 5 from a co-operative institution for analysis of an informal sample of wheat.

Thus the total income to the Corporation through the working of the Laboratory to administer the Prevention of Food Adulteration Act in the City during 1961 came to Rs. 88,545.

Though the high cost as well as the relative short supply of food stuffs, as in the case of milk, may be thought of as offering the incentives for adulteration, still it cannot be gainsaid that the ultimate motive for an easy illegal profit is the sole basis for all the unscrupulous fraud on the public who are forced to pay heavily for buying and consuming these adulterated articles. It may be reiterated therefore, that unless a psychological fear complex is created by the imposition of heavier and deterrent fines and severe punishment, the unhealthy tendency of the vendors to adulterate cannot be crushed effectively and quickly. This observation is amply born out by the data furnished in the Statemen No. II an increase of Rs. 32 in the total average fine per conviction has had an immediate salutary effect of forcing down the total percentage of adulteration from 28.7 to 24.4.

Finally, it may be mentioned that further improvement in checking adulteration can be visualized when the licensing regulations governing the various food trades are enforced effectively. This measure will go a long way in eliminating the itinerant and stray vendors and the agents of mofussil business men who contribute a considerable proportion to the high percentage of adulteration and to the pending prosecutions swelling in number year after year.

WATER ANALYST'S LABORATORY

Introduction

This is the 39th report of the Water Analyst, setting out the work of the Water Analysis Laboratory for the year 1961. During the year under review, the water-supply to the City continued to be a chlorinated mixture of filtrates from the Slow Sand Filters and Rapid Mechanical Filters. On an average, 31.18 to 34.7 million gallons of raw water were pre-chlorinated with a dose varying from 0.96 to 1.38 p.p.m. a day. About 22 to 25 million gallons of chlorinated raw water were strained through sand filters, with six inches of fine sand, as the filtering medium, which were worked without any fixed rate of filtration, while the rest were treated with alum (3.6 to 4.2 g.p.g.), flocculated clarified and filtered through Rapid Mechanical Filters. The filtrates of indifferent quality as obtained from the sand filters, were mixed with the filtrates of fairly good quality, as obtained from the Rapid Mechanical Filters, chlorinated to a dose varying from 1.54 to 2.58 p.p.m. and supplied to the City.

The processed water, while being distributed, deteriorated to a slight extent both aesthetically and bacteriologically. Though the smell of Sulphuretted Hydrogen was generally absent in the City Distribution System, a few blood worms made their appearances at the consumers' taps in only a very few localities. Systematic scouring and sterilisation of the mains served to set right the defects.

The following are certain important features, worth mentioning in this report :—

1. The level of water in the Red Hills Reservoir was maintained without marked fluctuations.

2. The samples collected from the Test Tap at the Head-works, at different times of the day were of uniformly satisfactory sanitary quality, throughout the year.

3. Complaints from the public on the prevalence of smell and leeches were fewer as compared with previous years.

Scientific.

Water-supply to the City is derived from three different sources namely, (A) the Kortalayar River System, (B) the Infiltration Gallery Wells at Saidapet and Sembium and (C) the Shallow Wells at Adyar, Kodambakkam, Guindy, North Madras, Triplicane, Naduvakkarai and on the shores of Marina. The physical, chemical and bacteriological character of the water in each of the above three sources during the year are briefly dealt below :—

(A) *The Kortalayar River System*.—The river Kortalayar is dammed at Poondi, about 32 miles away from the City and Sathyamoorthy Sagar has been formed for storing the flood discharges. The stored water is let down through the river bed and another channel, called the Upper Supply Channel, into the Sholavaram Reservoir and from the latter, water is let down through the Lower Supply Channel into the Red Hills Reservoir. The water from the Red Hills Reservoir gravitates through two closed masonry conduits into the Head Works, at Kilpauk. The above sources were visited by the Water Analyst or the Assistant Water Analysts periodically during the year and samples were collected and analysed. The results of analysis are shown in the Water Analysis—Statements Nos. III, IV and V.

I. *Sathyamoorthy Sagar (vide Statement No. II)*.—The total yearly rainfall recorded at Poondi was 123 cm. as against 149 cm., recorded during last year. The highest rainfall of 32.7 cm. was recorded in August. The average reservoir level was 137.88 feet in January and decreased to 128.84 feet in August and then increased to 134.59 feet in December.

Physical, Chemical and Bacteriological (vide Statement No. III).—The temperature of the water rose from 29.5°C in January to 35°C in April varied from 28.3°C to 30.5°C during May to September, 33.5°C during October and thereafter decreased to 24.5°C in December. The turbidity varied from 20 to 26.5 p.p.m. during January to May, 46.5 p.p.m. during June, 56 to 74 p.p.m. during August and September and 28 to 31.5 p.p.m. during October, November and December.

Chemically, the pH varied from 8.6 to 8.9 during January to April, 8.9 to 9.1 during May to August, 8.4 to 8.5 during September to October and 8.9 during November and December. The total alkalinity was 15.4 p.p.ht. in January, varied from 14 to 14.8 p.p.ht. during February to August, 16.5 p.p.ht. during September and varied from 17.5 to 18.6 p.p.ht. during October to December. The chlorides increased from 2.7 p.p.ht. in January to 4.3 p.p.ht. in June, decreased to 3.6 p.p.ht. in September and then increased to 4.5 p.p.ht. in December. The hardness decreased from 9.6 p.p.ht. in January to 5.6 p.p.ht. in June, increased to 9.6 in November and again decreased to 8.0 p.p.ht. in

December. The conductivity of the water decreased from 335 micro mhos/cm in January to 310 micro mhos/cm. in May and increased thereafter to 450 micro mhos/cm. in December.

The albuminoid nitrogen varied from 0.040 to 0.048 p.p.ht. during January to April, 0.064 p.p.ht. in May, 0.120 p.p.ht. in June and decreased to 0.040 p.p.ht. in December. The Tidy's figure increased from 0.170 p.p.ht. in January to 0.376 p.p.ht. in June, 0.312 p.p.ht. in August, increased to 0.424 p.p.ht. in September and decreased thereafter to 0.273 p.p.ht. in December. The dissolved oxygen decreased from 6.02 cc/L in January to 5.18 cc/L in April, increased to 6.16 to 6.23 cc/L during May to August, decreased during September and October and increased again to 7.0 cc/L during December.

Coliforms were present in volumes varying from 1 to 20 cc. during January to September and absent in 60 cc. during October and November.

II. *The Sholavaram Reservoir (vide Statement No. II).*—The total rainfall recorded in the catchment area of this reservoir was 90.2 cm. as against 147 cm., recorded during last year. The monthly average water level fell from 61.83' in January to 55.01' in August and then increased to 59.33' in December.

Physical, Chemical and Bacteriological (vide Statement No. IV).—The temperature of the water increased from 27°C in January to 30°C in April, decreased to 28°C in September, 30°C in October and thereafter decreased to 24.5°C in December. The turbidity varied from 24.5 to 26.5 p.p.m. during January to March, 41 to 96 p.p.m. during April to August and decreased thereafter to 26 p.p.m. in December.

Chemically, the pH of the water varied from 8.3 to 8.5. The total alkalinity varied from 12.7 to 13.6 p.p.ht. during February and November and varied from 14 to 15.8 p.p.ht. during rest of the months. The chlorides increased from 3.0 p.p.ht. in January to 4.6 p.p.ht. in June, 3.9 p.p.ht. in August and again increased to 4.4 p.p.ht. in December. The total hardness increased from 10.8 p.p.ht. in January to 7.6 p.p.ht. in May and varied from 8.4 to 8.6 p.p.ht. during rest of the months. The conductivity of the water was 440 micro mhos/cm. during December and varied from 340 to 395 micro mhos/cm. during rest of the months.

The albuminoid nitrogen varied from 0.040 to 0.056 p.p.ht. The Tidy's figure increased from 0.107 p.p.ht. in January to 0.300 p.p.ht. in June, decreased to 0.120 p.p.ht. in September and thereafter increased to 0.236 p.p.ht. in December. The dissolved oxygen varied from 4.20 to 4.76 cc/L during April to May, 5.39 to 5.67 cc/L during February, June to November and 5.81 to 5.95 cc/L during January and December.

Coliforms were absent in 60 cc. during December and present in volumes varying from 1 to 20 cc. during rest of the months.

III. *The Red Hills Reservoir (vide Statement No. II).*—The total rainfall recorded in the lake region was 76 cm. as against 105 cm., recorded during last year. The monthly average water level was 45.78' in February, decreased to 43.33' in June and increased thereafter to 45.05' in November.

Physical, Chemical Biological Conditions (vide Statement No. V and Graph No. I)—Physical Conditions—Colour.—The water was slightly yellowish during January to June, October and November, yellowish during August and September and whitish during December.

Turbidity.—The turbidity of the water fluctuated between 15.5 and 21.5 p.p.m. Turbidity was low (15.5—17.5 p.p.m.) during February, May, June, October and December; moderate (18.5 p.p.m.) during November and high (19.5 to 21.5 p.p.m.) during January, March, April and August.

Temperature.—The temperature of the water increased from 26.5°C in January to 31°C in April; decreased to 28.3°C in September; 30.1°C in October and again decreased to 24.5°C in December.

Chemical Conditions—pH.—The pH of the water varied from 8.3 to 8.8. The pH was low during April and December; high during January, September & November and moderate during the rest of the months. The water was alkaline throughout the year.

Carbonates.—Carbonates varied from 0.36 p.p.ht. to 1.2 p.p.ht. Carbonates were low during February, October and December; moderate during January, March, April, August, September and December and high during May and June.

Bi-carbonates.—Bi-carbonates varied from 9.8 to 14.1 p.p.ht. Bi-carbonates were low during February to April; moderate during May, June, August and November and high during January, September, October and December.

Hardness.—The water was generally soft throughout the year, the hardness varying from 7.0 to 8.6 p.p.ht., expressed as CaCO₃.

Dissolved Oxygen.—Dissolved oxygen content varied from 4.34 to 6.23 cc/L. The percentage of saturation varied from 83 to 110. The water was under saturated during April; super saturated during January and fairly saturated during rest of the months.

Phosphates.—Phosphates were absent during February, April, September, November and December and present during rest of the months.

Silicates.—Silicates varied from 1.2 to 4.0 p.p.ht. Silicates were low during October to December, high during May, August and September and moderate during rest of the months.

Oxidisable Organic Matter.—The figure for Tidy's test varied from 0.141 to 0.337 p.p.ht. The maximum level was attained during August. The curve for Tidy's values bears an inverse relationship with that for lake level.

Albuminoid Nitrogen.—The albuminoid nitrogen content was low (0.020 p.p.ht.) during June and varied from 0.048 to 0.064 p.p.ht. during rest of the months.

Biological.—Coliform were present in volumes varying from 1 to 20 cc. throughout the year.

The number of planktonic organisms varied from 15,000 to 30,400 cc., Cynophyceae was predominant throughout the year. Among the cynophyceae microcystis and anabaenopsis were present in abundance during summer and decreased during winter. Chlorophyceae was subdominant throughout the year. Diatoms, protozoans and rotifers were rare throughout the year.

From the Graph No. I it could be seen that the planktonic organisms were low during November, moderate during January to March, May to August, October and December and high during April and September.

The following is the list of species which were very common, common and rare :—

<i>Very Common (ccc)</i>	<i>Common (cc)</i>	<i>Rare (r)</i>
Oscillatoria	Oocystis	Synedra
Anabaenopsis	Staurostrum	Navicula
Microcystis	Trachelomonas	Pinnularia
Coelospherium	Euglena	Ankistrodesmus
Merismopaedia	Peridinium	Pediastrum
	Anabaena	Brachionus
	Cosmarium	Coleps
	Chroococcus	Cyclotella
		Scenedesmus
		Phacus
		Bursaria

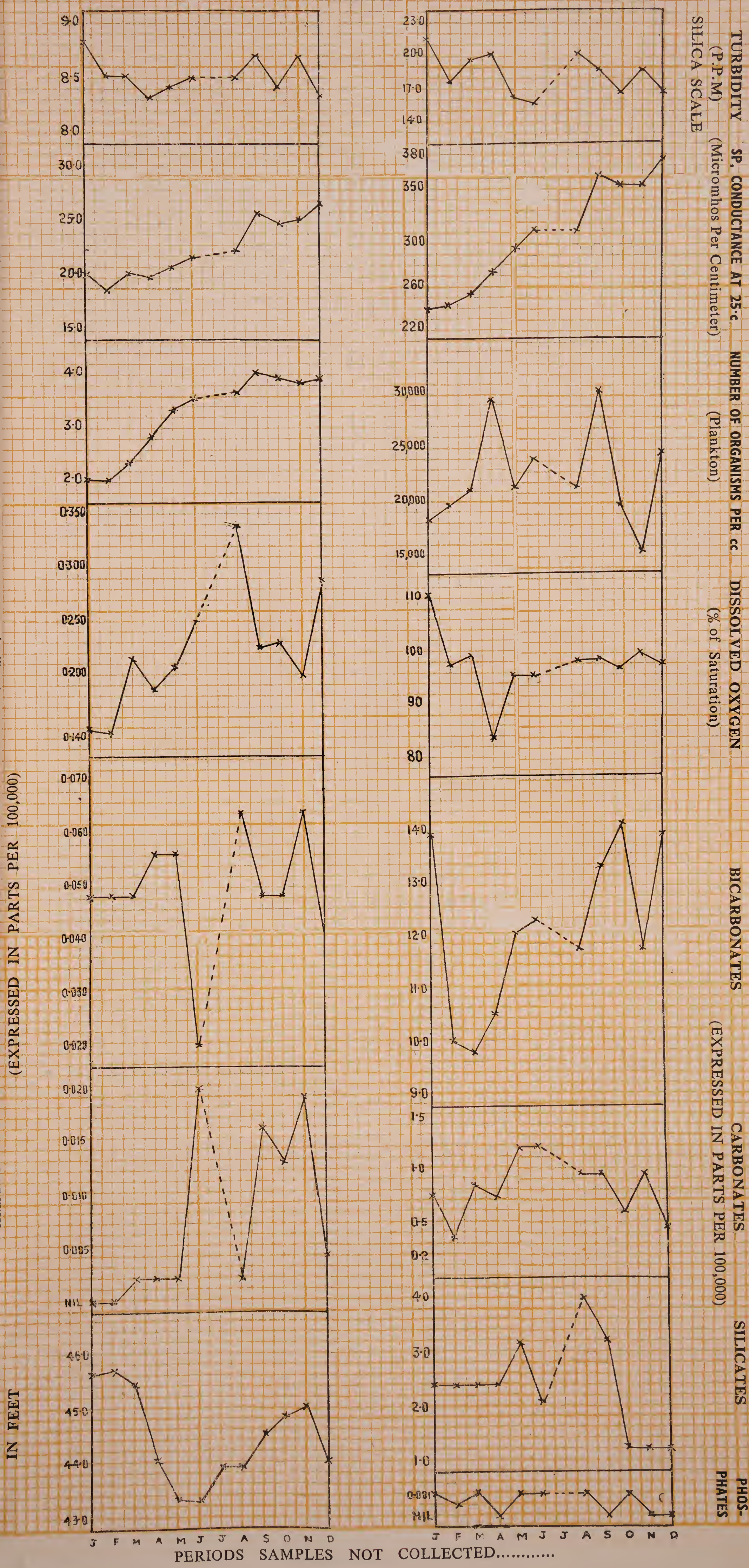
IV. *Chlorinated Raw Water (vide Statement No. VI. Graph II.)*—The raw water reaching the Kilpauk Water Works was chlorinated with gaseous chlorine just a few minutes before reaching the sand filters and the flocculators. The dose of chlorine applied to the raw water varied from 0.96 to 1.38 p.p.m. The percentage of samples showing absence of coliform organisms in 60 c.c. volumes varied from 4 to 61.

The monthly variation in the concentration of some of the salient constituents of the chlorinated raw water were as given below:—

	<i>Yearly range in p.p.ht.</i>
pH	... 8.2 to 8.5
Chlorides	... 1.9 to 4.0
Hardness	... 6.3 to 8.5
Ammoniacal Nitrogen	... Nil to 0.004
Albuminoid Nitrogen	... 0.038 to 0.077
Oxygen Absorbed	... 0.125 to 0.186
Iron	... Nil to Tr.
Turbidity (p.p.m.)	... 15 to 19.2
Sp. Conductivity (micro mhos/cm. at 25.0°C)	... 220 to 350

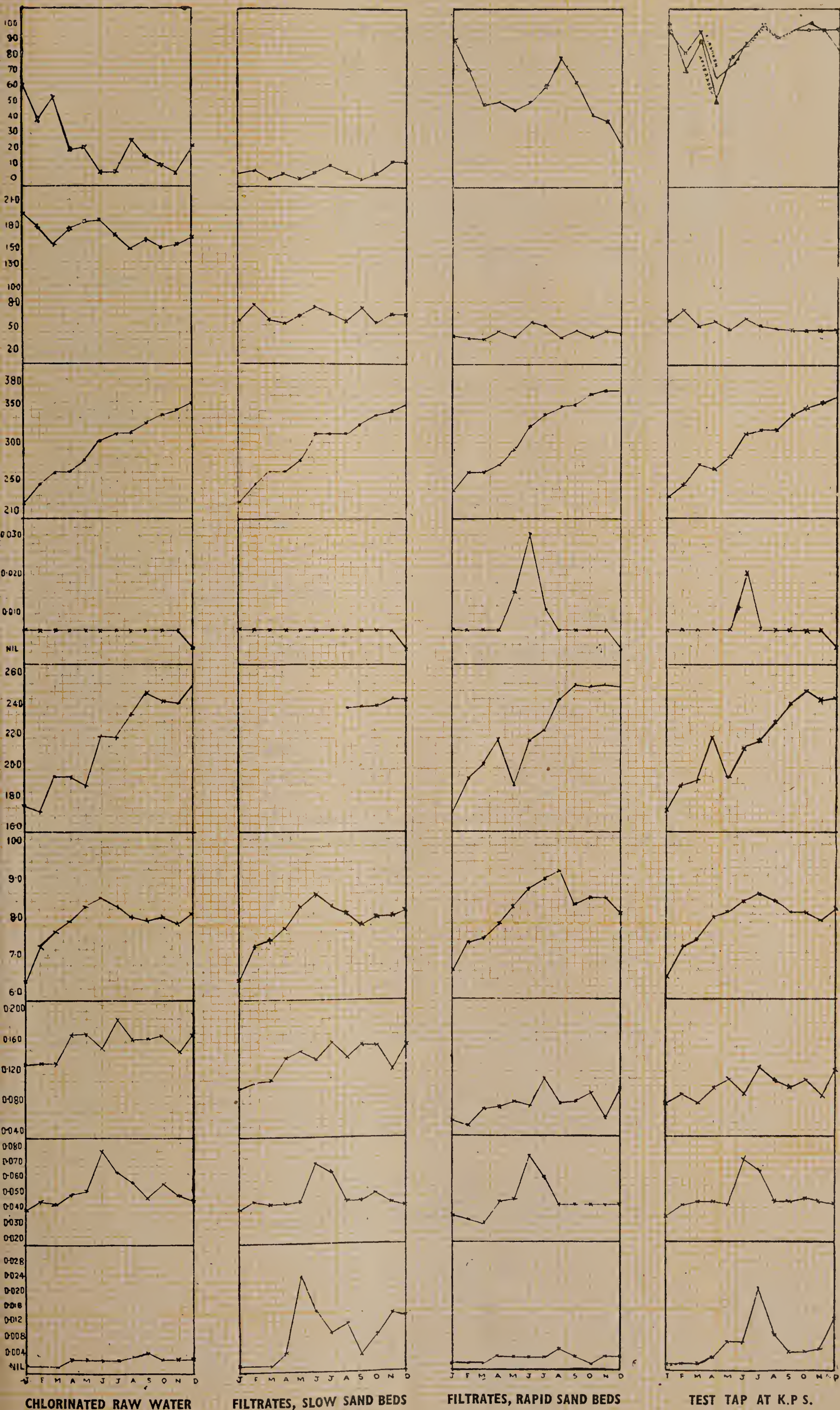
HOWING PHYSICO - CHEMICAL & BIOLOGICAL CONDITIONS OF REDHILLS RESERVOIR

1961



SHOWING CITY WATER SUPPLY : HEAD WORKS PHYSICO-CHEMICAL & BACTERIOLOGICAL CONDITIONS

1961



V. *Slow Sand Filters and Filtration* (*vide Statement No. VII, Graph II*).—There are seventeen Sand Filters, with 6" of fine sand as the filtering medium. They are not worked with any fixed rate of filtration. The filtrates are therefore of indifferent quality. During the year under review, on an average, 10 to 13 beds were in commission every day and the quantity of water strained varied from 22 to 23 million gallons a day.

On the chemical side, the quality of the filtrates were almost of the same quality as that of the chlorinated raw water. The percentage of reduction in the Tidy's figure over the corresponding figure for the chlorinated raw water varied from 5 to 25.

Bacteriologically, 0 to 12% of the samples examined showed the absence of coliform organisms in volumes of 60 cc. and upwards.

The monthly variation in the concentration of some of the important constituents of the filtrates from the sand filters were as given below :—

	<i>Yearly range in p.p.ht.</i>
pH	... 7.5 to 8.2
Chlorides	... 1.9 to 3.8
Hardness	... 6.3 to 8.6
Ammoniacal Nitrogen	... Nil to 0.024
Albuminoid Nitrogen	... 0.038 to 0.069
Oxygen Absorbed	... 0.094 to 0.156
Iron	... Nil to Tr.
Turbidity (p.p.m.)	... 5.6 to 7.8
Sp. Conductivity (micro mhos/cm. at 25°C)	... 220 to 350

It could be seen from above that inspite of the application of a fairly high dose of chlorine to the raw water, feeding the sand filters, the filtrates from the beds were of poor bacteriological quality.

VI. *Rapid Mechanical Filters* (*vide Statement No. VIII, Graph II*).—About 9 to 10 million gallons of chlorinated raw water was again chlorinated with a dose of 1.5 to 2.1 p.p.m. to bring down the algal load prior to alum treatment. The chlorinated raw water was treated with alum with a dose varying from 3.6 to 4.2 g.p.g., flocculated, clarified and filtered through Rapid Mechanical Filters. The quantity of filtrates varied from 9 to 10 m.g.d.

Chemically, the quality of the filtrates from the Rapid Mechanical Filters was far better than those from the Slow Sand Filters. The percentage of reduction in the Tidys' figure over that for the chloinated raw water varied from 42 to 64.

On the bacteriological side 21 to 91% of the samples, examined, showed the absence of coliform organisms in volumes of 60 cc. and upwards.

The variation in the concentration of some of the salient constituents were as given below :—

	Yearly range in p.p.ht.
pH	... 6.9 to 7.8
Chlorides	... 2.1 to 4.0
Hardness	... 6.6 to 9.2
Ammonical Nitrogen	... Nil to 0.004
Albuminoid Nitrogen	... 0.028 to 0.072
Oxygen Absorbed	... 0.046 to 0.108
Iron	... Nil to 0.015
Turbidity (p.p.m.)	... 3.1 to 5.6
Sp. Conductivity (Micro mhos/cm. at 25°C)	... 235 to 365

VII. *Test Tap at K.P.S. (vide Statement No. IX, Graph II).*—The samples of water collected from the test tap at K.P.S. represented the mixture of chlorinated filtrates from the Slow Sand Filters and the Rapid Mechanical Filters. On the chemical side, the quality of the samples was resultant of the individual quality of the filtrates from the Rapid Mechanical Filters and Slow Sand Filters owing to the blending effect.

On the bacteriological side 65 to 100% of the samples collected at 11 a.m. and 50 to 100% of the samples collected at 4.0 p.m. showed the absence of coliform organisms in volumes of 60 cc. and upwards. From the above it can be seen that the quality of the samples collected at 11 a.m. and those of the samples collected at 4.0 p.m. are of uniformly good sanitary quality. A residual of 0.2 to 0.4 p.p.m. of chlorine was generally maintained at the test tap.

The variation in the concentration of some of the salient constituents were as given below :—

	Yearly range in p.p.ht.
pH	... 7.3 to 7.7
Chlorides	... 2.0 to 3.9
Hardness	... 6.4 to 8.6
Ammoniacal Nitrogen	... Nil to 0.020
Albuminoid Nitrogen	... 0.034 to 0.070
Oxygen Absorbed	... 0.075 to 0.120
Iron	... Nil to 0.020
Turbidity (p.p.m.)	... 4.5 to 7.0
Sp. Conductivity micro mhos/cm.	... 230 to 360

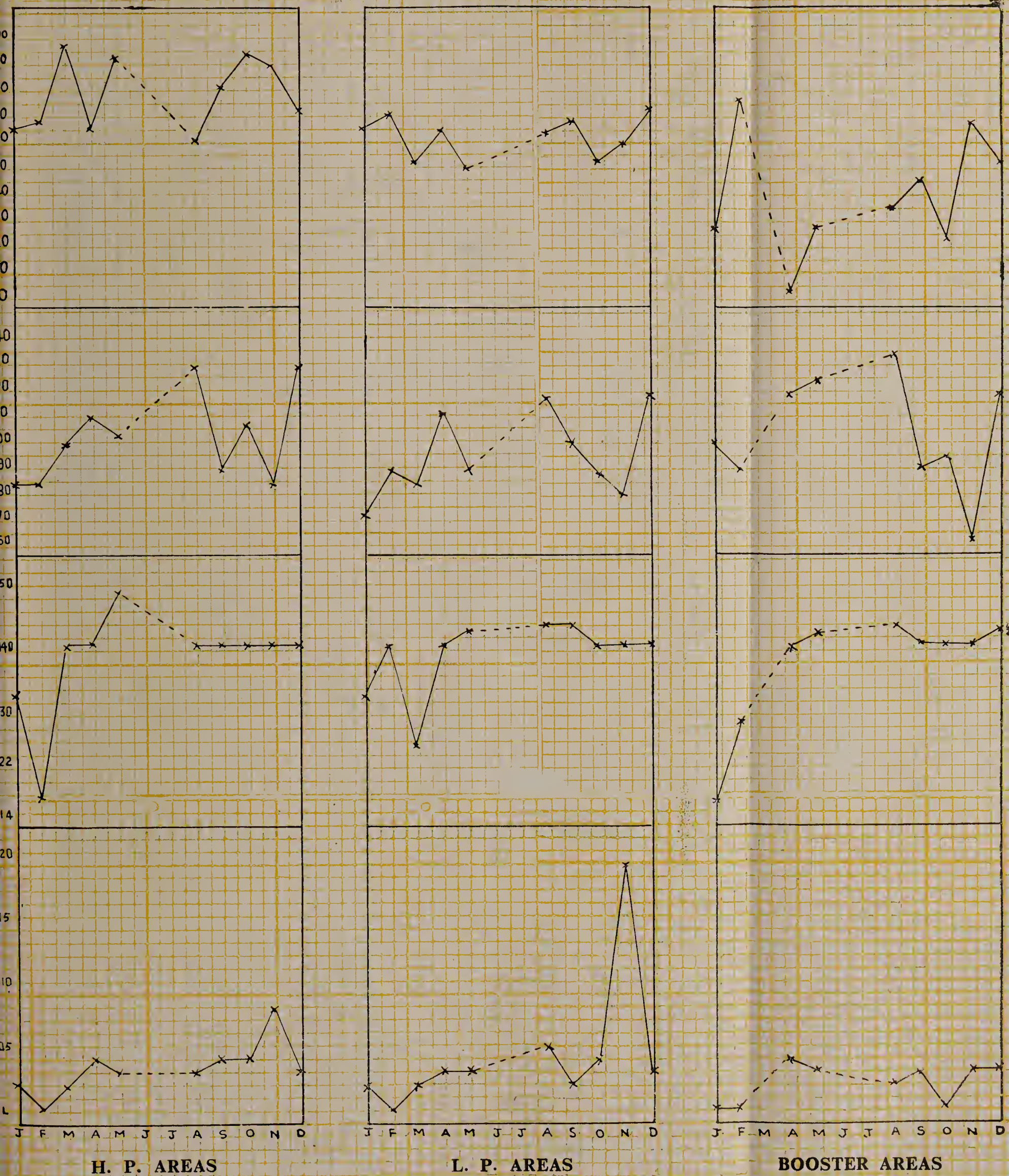
VIII. *The City Distribution System (vide Statement Nos. XI, XII and XIII, Graph III).*—The water distributed, deteriorates to a slight extent during transit through the lengths of mains. Such deteriorations were more marked in Low Pressure areas and at tail ends of the distribution system.

CHART III

MADRAS CITY WATER SUPPLY : DISTRIBUTION SYSTEM

CHEMICAL & BACTERIOLOGICAL CONDITIONS

1961



.....PERIODS SAMPLES NOT COLLECTED

Bacteriologically; 58 to 95%, 50 to 72% and 0 to 75% of the samples collected from the high pressure, Low pressure and Booster areas, respectively, showed the absence of coliform organisms in volumes of 60 cc. and upwards on examination.

The variation in the concentration of some of the salient constituents of the samples of water, distributed, were as given below :—

<i>Yearly range in parts per 100,000</i>				
		<i>H.P. areas</i>	<i>L.P. areas</i>	<i>Booster areas</i>
pH	...	7.2 to 7.7	7.2 to 7.7	7.3 to 7.7
Chlorides	...	2.1 to 3.9	2.1 to 4.0	2.2 to 4.0
Hardness	...	6.5 to 8.1	6.4 to 8.2	6.5 to 8.5
Ammoniacal Nitrogen	...	Nil to 0.008	Nil to 0.019	Nil to 0.004
Albuminoid Nitrogen	...	0.016 to 0.048	0.024 to 0.043	0.016 to 0.043
Oxygen Absorbed	...	0.081 to 0.127	0.070 to 0.117	0.060 to 0.132
Iron	...	Nil to 0.010	Nil to 0.020	Tr. to 0.015
% of samples showing absence of coliform organisms in 60 cc. and upwards	...	58 to 95	50 to 72	0 to 75

(B) *The Infiltration Gallery Wells at Sembiam and Saidapet (vide Statement Nos. XIV, XV and XVI).*—Water-supply to Sembium and Saidapet areas are being supplemented with chlorinated well water drawn from two infiltration gallery wells. The water from the infiltration gallery at Sembium contained iron in suspension and as such the water was chlorinated at the headworks and then lime-treated at the over head tank and distributed. Filtration of the treated water is desirable to hold back the precipitated iron prior to distribution.

In case of Saidapet, the water from the Infiltration gallery was of satisfactory chemical quality and as such the water was just chlorinated and distributed. The salient chemical characteristics of both the water were as given below :—

<i>Yearly range in parts per 100,000</i>			
		<i>Sembium</i>	<i>Saidapet</i>
pH	...	6.9 to 7.1	7.1 to 7.5
Chlorides	...	8.0 to 17	11.2 to 17.0
Hardness	...	12 to 21	14.4 to 24
Ammoniacal Nitrogen	...	Nil to 0.002	Nil to 0.003
Albuminoid Nitrogen	...	0.002 to 0.003	Nil to 0.005
Oxygen Absorbed	...	0.016 to 0.060	0.006 to 0.050
Iron	...	0.010 to 0.050	0.010 to 0.030

The bacteriological quality of the distributed water in both the areas was quite satisfactory. The percentage of the samples showing the absence of coliform organisms in volumes of 60 cc. and upwards varied from 75 to 100 in Sembium and 33 to 100 in Saidapet.

(C) *The Shallow wells supply in some of the outlying areas and in poorly served areas of the City (vide Statement No. XVII).*—The shallow wells, located at Ganapathy Colony (Guindy) served to supplement the Red Hills water-supply to Guindy. The water drawn from the well was just chlorinated and distributed. The wells located at Urur village and Kottur village served as source of water-supply to Adyar area. The wells in United India Colony, Puliur (Kodambakkam), Nagappier Street (Triplicane), Chellapilliar Koil Street (Triplicane), Solayappan Street (Washermanpet), T. H. Road (near Tower Clock), and on the Marina served as sources of water-supply to Kodambakkam, Triplicane, and Washermanpet areas. The wells in Cherian Nagar, Market Farm and I.D. Hospital served to supplement the water supply to Tondiarpet area. The well in Naduvakkarai served to supplement the water-supply to Naduvakkarai area. The water pumped from the above wells were just chlorinated and distributed.

All the shallow wells with the exception of those at United India Colony, Puliur (Kodambakkam), Ganapathi Colony (Guindy), Chellapilliar Koil Street, T. H. Road (Tower Clock), yielded water of satisfactory chemical quality.

Sterilisation of Water Mains (vide Statement No. XVIII).—The sterilisation of water mains was continued during the year under report. A systematic programme of sterilisation of the mains was followed up with the aid of two chlorine injecting plants for the first quarter of the year and with only one plant for the rest of the year. 12 miles and 4 furlongs of mains were sterilised. In all 1,698 lbs. of chlorine were used during the course of 49 days with the plant No. 1 and 218 days with the plant No. 2. Samples were collected before and after treatment wherever facilities were available and were examined. 67% of the samples collected before sterilisation and 88% of the samples collected after sterilisation showed the absence of coliform organisms in volumes of 60 cc. and upwards.

Effects of sterilisation.—Brown, flocculent, soft deposits were dislodged from the sterilised portions of the mains, when scoured on the following day. The deposits consisted mainly of ferric oxide, organic matter and iron bacterium (*Siderocapsa* Sp. and *Leptothrix Ochraceae*). There was an increase in the iron content immediately after sterilisation, followed by a reduction thereafter. Leeches and worms if present were eradicated. An improvement in the bacteriological quality of the water, distributed, was generally noticed.

From the above, it is evident that the injection of chlorine into the mains has improved the condition of mains and also the general quality of the water distributed. Sterilisation is now considered as a positive and effective measure against the infestation of the mains by leeches and blood worms. Sterilisation of the mains has also served as a precautionary measure against the prevalence of cholera and enteric fever in the City.

During the year under report a sum of Rs. 930 was realised by way of fees for analyses of samples received from private parties.

Staff.—Thiru V. Kripakaran, continued as the Water Analyst, Thiru S. Nagarajan, B.Sc., Thiru C. N. Muruganathan, B.Sc. and Thiru K. Sathya-jaganatha Rao, B.Sc., were the Assistant water Analysts.

ASHOK VIHAR

Health and Recreation Centre

The centre aimed at improving the health of the family as a unit of the low income groups residing in close vicinity of the premises through preventive and curative health services together with limited social services.

It is the only Socio-medical Urban Health Centre in the Madras City serving as a teaching and training centre for personal in the medical, nursing and social fields.

In addition to the more comprehensive health and social work to 284 member families, the activities of the Centre were extended to the local public by providing maternity, paediatrics, family planning and dispensary services.

1. Service to Member Families :

Families with a monthly income of Rs. 150 and less residing in and around the slums within a mile radius from the centre were enrolled as member on a token membership fee of 6 nP. per family per month. To them preventive and curative health services and social services were provided to improve their standard of health.

Particulars of families :

Total No. of families on rolls on 1st January 1961	...	299
Total No. of families enrolled during the year	...	38
Total No. of families removed during the year	...	53
Total No. of families on rolls on 31st December 1961.		284

1. Monthly Income

Income	Nil	Under Rs. 50	Rs. 51-100	Rs. 101-150	Over Rs. 151
No. of families	13	97	144	20	10

2. Year of Enrollment

Year	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961
No. of families in 1961	17	8	13	10	19	5	25	25	25	22	24	14	39	38

3. Caste

Caste	Harijan	Hindus	Christian	Muslims	Anglo-Indians
No. of families ...	105	101	19	37	22

4. Residence

Residence	Periamet	Periamet slums	Chintadripet	Chintadripet slums	Choolai	Choolai slums	Other areas	Other areas slums
No. of families.	41	96	7	44	44	15	21	16

Families residing in Slums ... 171

Families residing elsewhere ... 113

5. Nature of Work

Nature of work	Unskilled Labour	Skilled Labour	Trade	Ancillary	Clerical	Teaching	Priests	Pensioners	Miscellaneous	Unemployed
No. of families ...	76	91	31	30	26	5	4	3	5	13

6. Children per Family

No. of children ...	Nil	1	2	3	4	5	6	7	8	9	10	11
No. of families ...	14	43	61	48	49	32	24	8	1	2	1	1

Average No. of children per family = 3.2.

1. Health Services :

(a) Periodic Health Check-up :

The object of the periodic health check-up of the members of the family was to diagnose diseases at their earliest stages and to get them treated so as to prevent conditions before they develop into serious conditions and secondly to observe the growth of children periodically.

674 General, 222 Eye, 223 Dental and 214 E.N.T. check-ups were done during the year. Of the 494 persons re-examined 398, recorded increase 76

reduction and 20 stationary weight. The health check-up revealed many ailments at their initial stages and they were promptly attended to.

Among children, decenteris and diarrhoeas, Respiratory infections, and skin infections were predominant. 6 cases of primary complex diagnosed received treatment. Deficiency diseases which were seen in good many children in the previous year have been markedly reduced. The skimmed milk that was given to the children regularly must have been the cause for the improvement in their nutritional standards. Out of 18 cases of Pulmonary Tuberculosis diagnosed last year 12 of them were cured and the remaining six continued treatment. Only 2 cases of Pulmonary Tuberculosis were diagnosed and they were treated at the T.B. clinics.

The following were the more important diseases noted in the health check-up :—

Deficiency diseases	...	43
Anaemia	...	26
Pulmonary Tuberculosis	...	2
Primary Complex	...	6
Respiratory infections	...	98
Digistive diseases	...	46
Cardiac diseases	...	6
High Blood pressure	...	5
Diabites	...	2
Veneral diseases	...	1
Skin diseases	...	22
Helminthic infections	...	37
Typhoid	...	10
Kidney infection	...	1
Filarasis	...	2
Hamsons diseases	...	2
Infictive hepatitis	...	6
Diseases of the eye	...	32
Diseases of the teeth	...	7
Diseases of the Ear, Nose & Throat	...	34
Error of refraction	...	19
Tuberculousis meningitis	...	1

There was a gereater incidence of typhoid in our area and only 10 of them suffered from the disease in spite of having had the inoculation. They were all admitted in the general hospital and discharged cured.

448 pathological investigations were done of which 216 specimens were negative 33 persons were referred to the T. B. Clinics of which 2 were found to be positive for tuberculosis. 125 patients were referred to other Government Hospitals either for admission or specialists opinion.

The following operations were arranged at the various Government Hospitals.

Tonsilectomy	...	3
Salpingectomy	...	2
Vasectomy	...	4
Appendicectomy	...	1
Gastrojunostomy	...	1
Hydrocele	...	2
Fracture Dislocation	...	1
Burns	...	1

In general the health of the members showed an improvement over the previous year.

(b) *Periodic Immunizations—*

Typhoid inoculation was given to 427 persons and vaccination against small pax was given to 463 persons.

Triple immunogen was given to 700 children of whom 149 completed the course of 3 injections, 151 have taken 2 injections and 400 only one injection.

Manteux test was done for all children under six and to those who were found negative B. C. G. was inoculated.

A greater demand for triple immunogen and B.C.G. was noticed during the year.

(c) *Health Education—*

Health education was imparted through talks to individuals and groups. The talks comprised of (1) Ways of improving and maintaining health (2) Prevention of diseases (3) Hygiene (4) nutrition (5) care of infants and children (6) care of expectant mothers (7) Family planning (8) value of recreation in body and mind building.

Demonstrations on nutrition were held. Mrs. Philips a nutrition expert demonstrated cooking of snacks from wheat and she exhorted the members to use more wheat in their daily food.

Films on health and social education were screened only for 2 months and for the rest of the period the projector was under repair. 13 films were screened to the members.

(d) *Recreation—*

The object of this activity was to improve the body and mind. Incidentally they developed other useful characteristics like comradeship, team spirit, leadership qualities etc. at the same time they were kept out of anti-social activities. Quite a few of them were proficient in some of the games and were recipients of trophies from tournaments conducted in the city. Volley Ball and Badminton continued to be the more popular outdoor games. Table Tennis and Carroms evoked interest among the indoor games. Other indoor

Ashok Viahar.



Inoculation against Whooping - Cough Diphtheria and Tetanus at Ashok Vihar,
Health Centre.

activities were weight lifting and Boxing. Sri N. Kanaka Rao, F. R. 183 again was the winner in several amateur and professional boxing bouts. Sri L. Namasivayan, F.R. 174 and his partner won the Table Tennis Doubles Tournament conducted by the Don Bosco Club. On the Audha Puja day there was variety entertainment when a number of children and adults entertained the members with songs and dances.

Annual sports was conducted when men, women and children took part and enjoyed the athletic met.

Handicrafts :—

The book binding section was inactive due to want of orders from the health Department.

The Badminton net making was also not possible as no orders were received from the education department for use in their playground.

The sewing section was very active. With one sewing machine the members stitched their own garments and four women made use of the machine to earn their livelihood. A total of 1,147 garments were stitched by the members with the use of the machine. Two numbers bought a machine each on hire purchase system after learning cutting and sewing. They supplemented the family income by the wages they earned daily. The want of one more sewing machine is keenly felt in this section. Boys and girls were taught paper flower and doll making. They have worked out a model of the working of Ashok Vihar.

Personal Hygiene—

Attention to personal Hygiene of members was continued this year also but it was found that they did not require so much of attention as was in the previous years. Yet a few who did not have convenience for taking baths or washing their clothes at home used the centre for such purposes and as usual soaps, towels, hair oil mirror and combs were provided for them.

Home visits—

145 visits by each of the Welfare Organizers were made to the homes of the member families. The doctors could go only twice a week in turns, as they had to work in the dispensary on other days. Expectant and nursing mothers, infants, and pre-school children, the sick and the convalescent were seen during those visits and appropriate help and guidance were given.

Creche—

Children under 6 of working class mothers and widowers, made use of the facilities provided in the creche attached to the centre.

The children on arrival were given bath and a change of dress. They were given three feeds during the day. In the morning they were given skimmed milk, during midday, Rice, vegetables and dhall, and in the afternoon cows milk and a slice of bread. Once a week, each child received an egg and a fruit.

Children of the pre-school age were imparted nursery education by a trained nursery teacher. They were also provided with facilities for indoor and outdoor recreation. Everyday the children were examined and the sick received the necessary treatment.

No. on Rolls on 1-1-1961	... 64
No. admitted during the year	... 42
No. removed during the year	... 44
No. on rolls on 31-12-1961	... 62

13 children were admitted in elementary schools after the completion of their 6th year. One child was admitted in Bala Mandir. One child which developed dysentery after measles was admitted in the General Hospital where she died.

Health check-up—

Each child was given a monthly health check-up when their heights, weights and general conditions were noted. Minor ailments were given prompt treatment at the centre. Eye, Dental and E.N.T. check-up were done once a year. 600 General, 59 Eye, 28 Dental and 46 E.N.T. check-ups, were done.

Respiratory infections, dysenteries and diarrhoeas, skin infections, conjunctivitis and otitis were the diseases more frequently met with. Among the infectious diseases there were 3 cases of measles. 2 of mumps and one chicken-pox. Nutritional deficiencies were not very noticeable except in some of the newly admitted children. Among the helminthic infections 25 children were found to be infected with round worms 2 with Giardiasis Lamblis, 6 with whip worms and 1 antylostoms.

Laboratory Investigations—

<i>Blood Total</i>	... 23
Low H.B.	... 8
Low R.B.C. Count	... 13
High W.B.C. Court	... 19
High Eosinophil count	... 17
High Monocyie count	... 4
Tropical Eosinophilia	... 7

<i>Motions Total</i>	... 35
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Round worm ova	... 23
Whip worm oya	... 6
Giardasis	... 1
Ankylostomes	... 1
Puscells & R.B.C.	... 1

Immunizations—

1. *Vaccination against small pox—*

Primary vaccination	... 12
Secondary vaccination	... 59

2. T.A.B.	... 60
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5. *Triple antigen*—

(a) Booster dose	...	5	} New admissions only.
(b) Full course	...	18	
(c) Incomplete course	...	9	
(d) To be completed in 1962	...	4	

50 children have already received the full course during the previous year.

4. *Manteauy Test*—

Total No. tested	...	44
Positive	...	21
Negative	...	23

B.C.G. was given to 20 children.

Maternity Service 39 members received ante-natal care and 32 members delivered at the centre. One member had abortion and she was given the necessary treatment.

Family Planning Service—

It is heartening to note that two women and four men underwent surgical operations.

87 women took advantage of the contraceptive aids given in the centres family planning section.

In November, 1961 sheaths were sent by the family planning medical officer and 16 men were provided with them.

Curative health Services—

Minor ailments were treated at the centres dispensary, Major ailments were referred to hospitals. Both doctors and social workers followed the patients in the hospitals and rendered help.

General—

Pongal was celebrated at the centre by the women and girls section. Pongal was prepared and distributed to the participants.

On the Tamil New years day more milk day was celebrated when about 3,000 children were recipients of a glass of milk each. The worshipful Mayor Thiru V. Munuswamy presided over the function.

Under the joint auspices of the Corporation of Madras and the Madras branch of the Indian Council of Child Welfare healthy Baby Competitions were arranged in all the 44 child welfare centres of the Corporation of Madras the final competition was held at Ashok Vihar on 3-4-1961. Mrs. Kochar presided over the function and distributed the prizes to the winners. Nearly 800 infants took part in the competition.

The navarathri week was celebrated with display of dolls and handwork of the children members. Every evening there was singing and dancing and on the Ayudha Puja day there was a variety entertainment after the Puja. Republic day and Independence day were celebrated with flag hoisting and distribution of sweets to children.

On the Republic day on behalf of the family planning section a float was prepared in which the members took part and the float was appreciated by the Madras Public.

Institutional care—

6 children were admitted in a boarding school at Wallajabad. Free school books were supplied to 3 deserving children.

Marriages—

11 members got married during this year of which 2 were ex-creche children.

Deaths—

There were 11 deaths among the members.

Under one year	...	2
Between 1 & 12 years	...	5
Adults	...	4

Causes of death—

Children

Diarrhoeas	...	2
Resporator infections	...	4
Fits	...	1

Adults—

High blood pressure	...	2
Cirrosis of the lever	...	1
Congestive Heart failure	...	1

Jobs—

Seven members procured jobs through the employment exchange and six more have taken to petty business. 4 women earned, through stitching garments.

Milk Distribution—

A total of 3,200 lbs. of skimmed milk powder was used for distributing milk daily among the members.

The following were the recipients :—

Infants	...	28
Children under 6 years	...	64
Children between 6 & 12 years	...	61
Expectant mothers	...	13
Nursing mothers	...	16
Sick and the Convalescent	...	30

II. *Service to the Local Public—*

(a) *Dispensary Service* : 40,437 persons were treated on the Health Centre side 8,887 persons from the maternity section and 4,912 from the Periphral Pediatric Clinic. A total of 54,236 persons were treated during the whole year.

(b) The Periphral Wing of the Pediatrics Department of the General Hospital attached to Ashok Vihar continued its preventive and curative work to the children in the locality. 4,912 children were examined and treated. Of these about 65% of them showed evidences of Primary Complex associated with nutritional deficiency. Nutritional deficiencies alone amounted to about 30%. Other less important diseases that were noted were dysenteries and Diarrhoeas, upper and lower Respiratory infections and helminthic infestations. 533 mothers were advised on child care and 481 laboratory examinations were made, 265 houses were visited by the Public Health Nurse.

(c) *Maternity Sections—*

No. of ante-natal examinations done at Ashok Vihar	...	742
No. of ante-natal examinations done at other centres	...	176
No. of deliveries conducted at Ashok Vihar	...	710
No. of deliveries conducted at Hospitals	...	31
No. of deliveries conducted at home by centre's midwives	...	114
No. of deliveries conducted at home by untrained midwives	...	9

Among the antenatal cases examined the following important diseases were noted :—

Deficiency diseases	...	64
Anaemas	...	46
Pre-Eclamptic Toxaemia	...	8
Hypertension	...	1
Valvular Diseases of the heart	...	1
Varicose veins	...	1
Dyspepsia	...	13
Dysentery & Diarrhoea	...	5

Complications of delivery—

Twins	...	5
Still Births	...	5
Macerated Foetus	...	5
Antepartum Haemorrhage	...	2
Abnormal Presentations	...	16
Retained Placenta	...	1
Postpartum Haemorrhage	...	1
Contracted Pelvis	...	4
Disproportion	...	2
Delayed 2nd stage	...	15
Perineal Laceration	...	64
Pyrexia	...	35
Other diseases	...	4

Family Planning Clinic—

No. of cases advised in General	...	1,866
No. of cases who had followed non-appliances method	...	Nil
No. of cases who had followed appliance method.		375

Particulars of appliance method—

Preception jelly	...	16	women
Sheath	...	1	women
Foam tablets	...	358	women

Surgical methods—

Puerperal Sterilization	...	15
Vasectomy	...	4
No. of Revisits to the clinic	...	754
Total attendance of new cases at the clinic	...	2,260

*Home Visits—**Propaganda—*

Houses visited	...	958
Women contacted	...	918

Follow up of Family Planning Clinic Cases—

Houses	...	1,952
Women	...	1,702

Re-visits—

Houses	...	849
Women	...	781

Follow up of Government Hospital cases—

Houses	...	104
Women	...	82

Total visits

Houses	...	3,863
Women	...	3,483

Statement of active and dropped cases—

Active cases at the beginning of 1961	...	247
Cases who adopted method during the year	...	345
Cases who dropped during the year	...	215
Active cases at the end of 1961	...	407

*Classification of 215 dropped cases—*1. *Methods—*

Foam Tablet	...	211
Preceptin	...	4

2. *Reasons for dropping—*

Indifference	...	43
Pregnant due to irregular use	...	30
Change of residence	...	60
Objection by husband	...	11
Deserted by husband	...	1
Objections to methods	...	3
Wanting more children	...	27
Not traceable	...	40

Total ... 215

III. *Service to Personal in the Medical° Nursing and Social Fields—*

As in the previous years students of the Department of Socio and Preventive medicine of the Madras Medical College were allotted Ashok Vihar families to study their social-economic and health conditions. Each batch of 3 students were allotted to a family. They visited their homes and gave help and guidance in matters pertaining to health.

A batch of 4 senior and 4 junior students from the Madras School of Social work were given training both at the centre and in the slums. Two students of social studies from Stella Maris College were given teaching and training for their thesis on Health Services at Ashok Vihar.

For a period of one month in February, 1962 a batch of Health visitors from the Government Health School were taught Urban Health Services and were taken to the slums for field work. Lectures on 'Positive Health' were given to six fresh batches of community project Health Service personal who underwent training in the Orientation Training Centre, Poonamallee. A batch of 6th form girls from Kalyanam Girls High School, Chintadripet were taught and trained in mother craft at the centre. Others who were benefited by their vists to Ashok Vihar were :

1. Students of the Madras Medical, Stanley Medical, Kilpauk Medical, Pondicherry Medical Colleges.
2. Students of Nursing from Trivandrum, Vellore and New Delhi.
3. Students of Social Work from Madras School of Social Work, from Kottayam, Stella Maris College and Waltair.
4. Student teachers from Teachers College, Saidapet, and Meston Training College.
5. Gramasevikas from Arni, Mukyasevikas from Coimbatore, Trainees of Short term Moral and Social Hygiene, Trainees of Christhaya Sévak Sangh.
6. Home Science Students of Q.M.C. and S.I.E.T. Colleges.
7. Students of National Girls High School, Royapettah Girls High School, Lady Willingdon High School, Sarada Vidyalaya Girls High School.

Gifts, Grants and Donations—

1. The State Government was pleased to sanction a grant of Rs. 10,000;
2. Out of the interest accrued on the donation of the Rs. 1,000 made by the Sow. Neelambal, Sisu Samrakshana Ksheera Dharma Endowment. milk was supplied to the Children in the Creche.
3. Srimathi Kandaswamy of Vepery distributed 6 pairs of half pants and shirts to six deserving boys in the creche and distributed buns and plan-tains to all the creche children on 24-12-1961.
4. The U.S.I.S., B.I.S. and the British Council continued to supply the Centre periodically films and back numbers of periodicals.

The authorities of the Corporation of Madras and the staff and members of Ashok Vihar are grateful to the above organisations and individuals for their gifts and help.

The following distinguished persons visited the centre during the year and recorded their appreciation of the work turned out by the centre in the visitors book.

1. January 25, 1961 ... Anna Marygade, Public Health Officer (C. D/training) W. H. O. Regional Office, New Delhi.
2. February 16, 1961 ... Evelyn Hersey, National Federation of Neighbourhood Centres, New York, U.S.A.
3. February 18, 1961 ... Dr. Rajah Moosaji Ebrahim Isoop, Health Department, Mauritius.
4. March 16, 1961 ... Miss H. M. Hedley, Ministry of Health, London.
5. August 7, 1961 ... Dr. D. M. Bassill, M.D., California, U.S.A.
6. November 29, 1961 ... Dr. Luce Sannangel Antonio, Italian Unesco Scholar.

COMMUNITY CENTRE

With a view to affording facilities to the public for conducting Marriages and other religious and social functions, the Corporation has embarked on a scheme of opening up Community Centre of its own in important centres within the City. A Community Centre, the first of its kind was opened at St. Xavier Street, Seven Wells, 11th division.

The Foundation stone was laid by Thiru K. Kamaraj, the Hon'ble Chief Minister for Madras State on 8th April, 1960, and the building was opened on 29th October, 1961 (29-10-61) by Thiru C. N. Annadurai, M.A., M.L.A. The cost of construction is about Rs. 80,000 and the vessels and other amenities have been provided therein at a cost of Rs. 15,000.

The Nominal rent for the building is Rs. 20 for 24 hours, and Rs. 12 for 12 hours or part thereof. The rent for the Vessels is Rs. 15 for 24 hours to 36 hours, and Rs. 10 for 12 hours or part thereof. Rs. 5 and Rs. 7-50 nP. is also collected for cleaning the Vegetarian and Non-Vegetarian Vessels respectively.

From 26th November, 1961 to 31st December, 1961, eighteen functions have been conducted and the total collection is Rs. 1,096 towards hire charges of the Building and vessels.

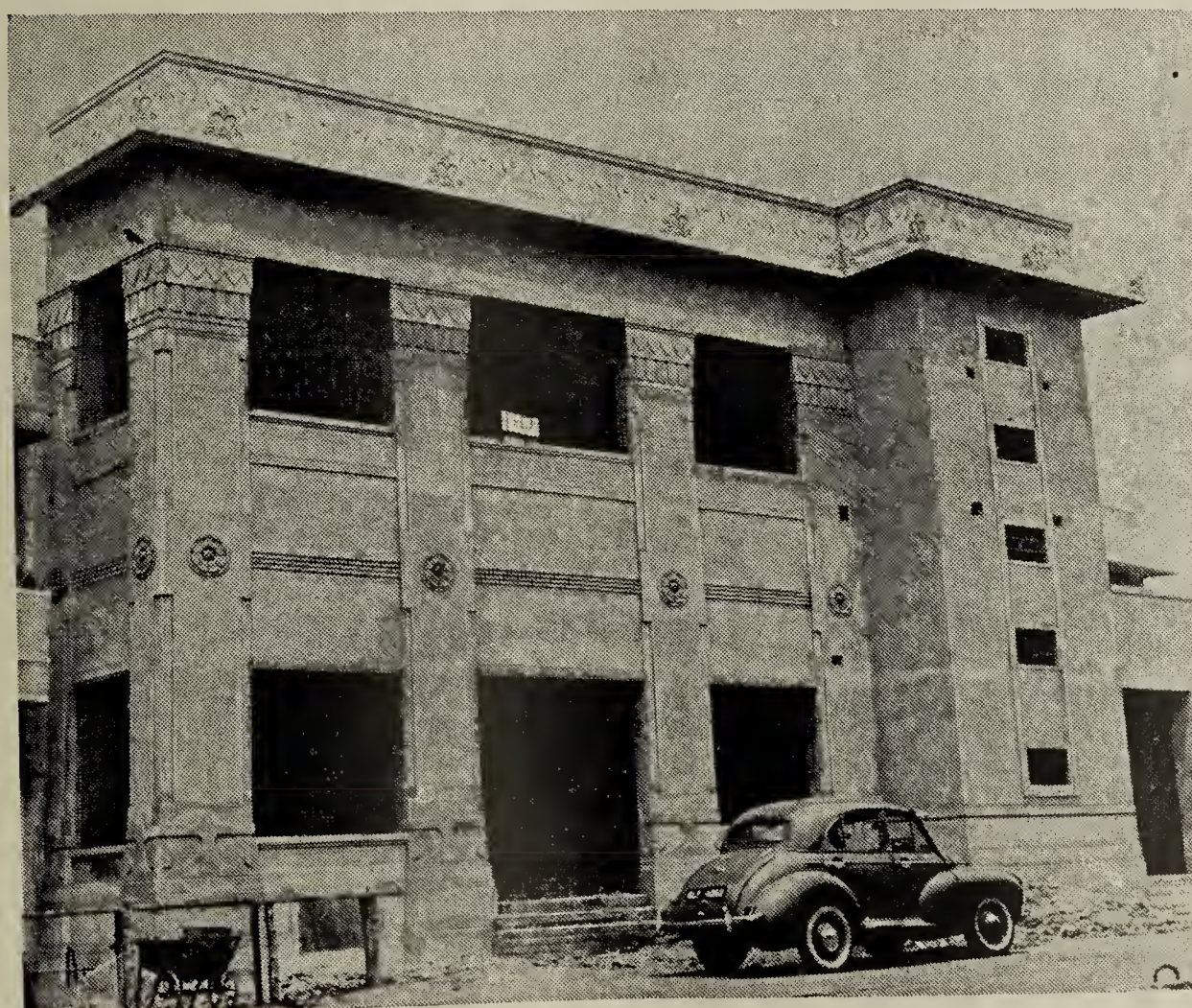
A Care Taker is placed in charge of the building and the Assist. Health Officer is having periodical inspection of the Centre. There are two (2) Sweepers one (1) Electrician, One (1) Lascar and a Latchi.

The Community Centre is not intended for any political functions. The Community Centre is gaining popularity and the need of the public can be fully met by opening similar centres in important places throughout the City, according to the availability of funds.

A community Centre will be opened shortly at Bhogipalayam in 38th Division.



Opening of Community Centre in St. Xavier Street, Seven Wells
by Thir C. N. Annadurai on 29 - 10 - 1961.



Community Centre Building Constructed by the Corporation
at St. Xavier Street, Seven Wells.

CHILD WELFARE SCHEME.

During the year 1961 the Peddunaickenpet Child Welfare Centre was reopened on 10th February, 1961. A new Centre was opened in Perumalpet Division 49 in Premises No. 18, Kariappa Mudali Street, donated by Thiru M. M. Parameswara Iyer. At the close of the year, there were 45 Child Welfare Centres, 20 of which had maternity wards with a total bed strength of 299. While there was a slight increase in the maternal mortality rate from that of the previous year, there was marked reduction in the infantile moratlity rate—the rates were 1.09 and 93.29 per mille during 1961 against 0.89 and 95.10 per mille of the previous year.

Staff.—Dr. V. S. Krishnaswamy, M.B.B.S., D.M.C.W. (Cal.), C.P.H. (Lond.), continued in the office of Lady Superintendent, Child Welfare Scheme. There were 31 Asstt Surgeons, 49 Health Visitors, 11 General trained Nurses, 268 Midwives and 29 Pharmacists.

Pre-natal Clinics were conducted in all the Centres regularly twice a week. At these clinics, the expectant mothers were given thorough medical check-up on their first visit and thereafter examined once a week or a fortnight as the cases required. Expectant mothers numbering 33,907 who attended the clinics were given medical advice and treatment by the Assistant Surgeons as against 37,365 for the previous year. These cases derived immense benefit from the advice and treatment given.

Serological Examination of blood of ante-natal cases was conducted in 19 of the warded centres. Treatment of positive cases was done free of cost. A statement is furnished below :—

Total No. of blood samples examined.	No. of positive cases.	No. of positive cases that took full course of treatment.	No. of positive cases that took partial treat- ment.	No. of posi- tive cases that did not turn up in spite of per- suation.
17,003	650	270	134	246

The percentage of positive cases was reduced from 4.15 of the previous year to 3.82 during the current year.

Maternity Service.—Out of the total number of 72,237 City births, 27,581 labour cases came under the care and observation of the Scheme during the year as against 29,087 of the previous year. The births conducted in the wards during the year were 15,505 against 15,882 of the previous year. The number of home visits made by midwives were 1,92,452, by Health Visitors 1,77,748 and by Assistant Surgeons 27,435. Among the births that came under the care of the Child Welfare Scheme there were 222 twins and 517 still births.

Ambulance Service.—Four ambulance vans were in service. During the year under report, 2,737 cases requiring hospitalisation were transported in these vans to the various maternity hospitals in the City.

Vaccination of new born babies was continued at Choolai Maternity Home during the year 1961, 694 neo-natal vaccinations were done during the year, (339 male babies and 355 female babies.)

Immunisation with triple antigen which was started at Ashok Vihar during 1959 was extended to Saidapet Maternity Home during 1960. As the results were encouraging it was started in other Centres also. The particulars are appended.

Out-Patient Clinics.—The Assistant Surgeons conducted out-patient clinics in all the Centres. At these clinics infants, pre-school children, expectant mothers and nursing mothers were examined and treated for minor ailments—49,714 infants, 14,344 pre-school children, 33,909 expectant mothers and 63,276 nursing mothers represent the new cases that were treated and advised. The total attendance was 4,48,284 inclusive of 2,87,041 old cases.

Free Milk Distribution.—Cow's Milk was continued to be supplied to ill-nourished infants free of cost. The total number of such infants, was 2,630. Skimmed milk powder donated by the UNICEF was reconstituted and supplied free to deserving infants, toddlers, expectant mothers and nursing mothers in all the Child Welfare Centres.

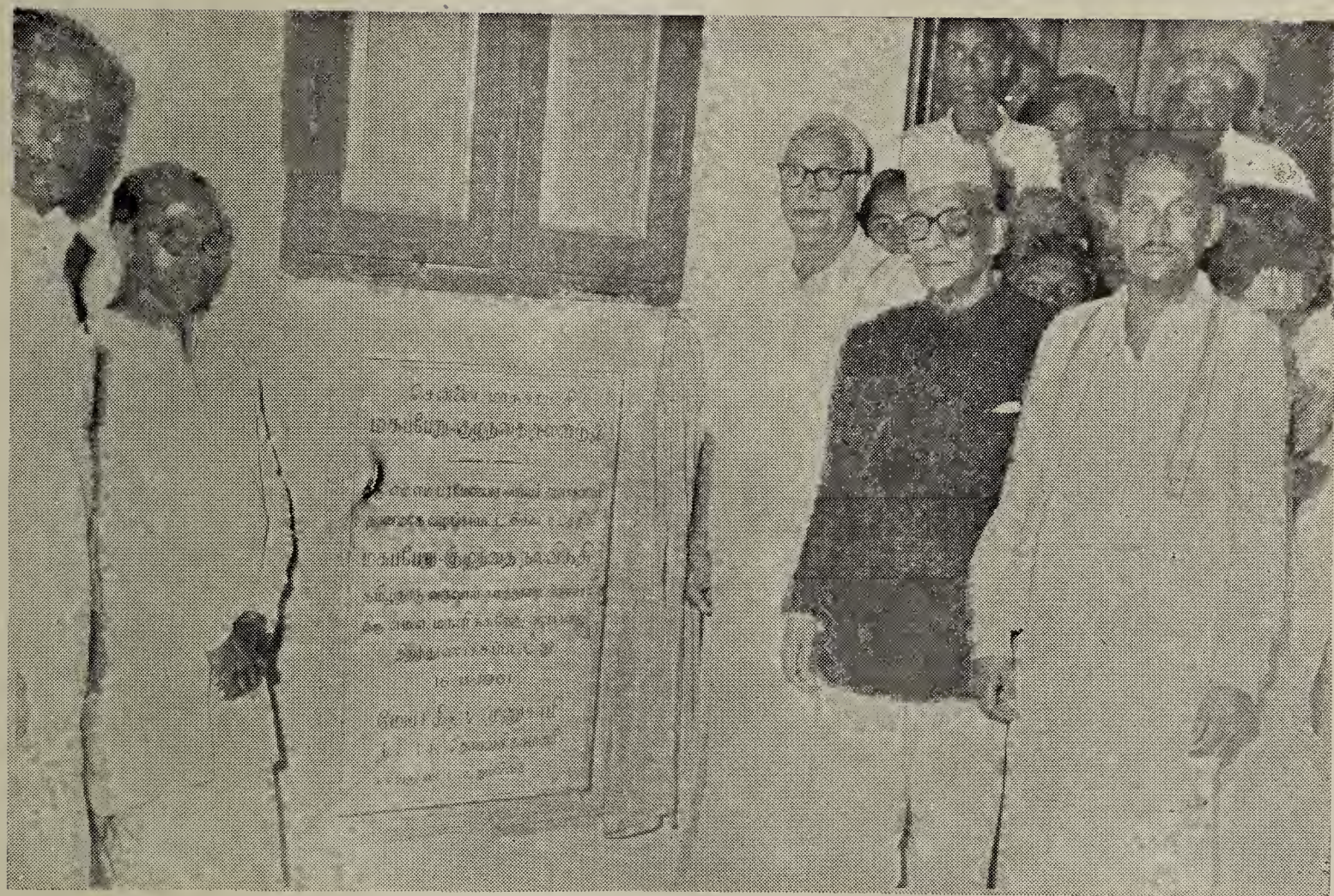
Maternal Mortality.—Out of 27,581 labour cases that came under the care and observation of the Child Welfare Scheme there were 30 cases of mortality as against 26 cases of mortality among 29,087 cases of labour conducted during the year 1960. Particulars are given below :

<i>Institution</i>	<i>Death during</i>	
	1960	1961
Child Welfare Scheme ...	2	2
Hospitals ...	23	27
Private Doctors ...	1	...
Vaidians ...	...	1
Total ...	26	30

The rate of maternal mortality worked out of 1.09 per mille against 0.89 per mille in the previous year.

Infantile Mortality.—The number of still births was reduced to 517 during 1961 from 607 for the year 1960 while the number of infants born for these years were 27,064 and 29,687 respectively. The number of infants kept under observation during the first of life in 1961 was 28,480 against 29,065 of the previous year. The mortality among live births was 2,657 against 2,764 of the previous year. The whereabouts of 3,541 children could not be traced. The infant mortality rate worked out to 93.29 per mille for the year 1961 against 95.10 per mille for the year 1960.

Maintenance of Creches:—For the benefit of working class parents with a combined income of less than Rs. 50 three Creches were maintained. The working mothers left their children at the Creches in the morning and took



Opening of a Child Welfare and Meternity Centre at Premises
No. 18, Kariappa Mudali Street, Purasawalkam, Madras on 16-11-1961
by Hon'ble Thiru M. A. Manickavelu, the then Minister of Madras.

them back on their return from work. During their stay at the Creches the children were given bath, fresh and clean clothing and nourishing food. They attended nursery classes where action songs, story telling and prayer formed part of the programme and played indoor and out door-games. Their minor ailments were attended to by the Assistant Surgeon. The average daily attendance of the Children at Royapuram, Broadway and Chetput Creches was 15, 23 and 13 respectively.

Propaganda.—During the year under report special attention was bestowed on the preventive aspects and mothers were educated in matters relating to Mother-Craft, Child Care, General Hygiene and prevention of disease. Films supplied free of cost by U.S.I.S. and other agencies were shown at Key Centers where audience from the neighbourhood collected. The number of shows arranged were 13 and the total attendance was 1,433. Particulars regarding the other activities were as follows :—

		<i>Total Attendance</i>
Mother-Craft Classes held once weekly	...	14,355
Well Baby Clinics held twice weekly	...	23,550
Group talks held twice weekly	...	44,829

During the year under report the Guild of Service carried out an intensive Programme on Nutrition and Wheat. Periodical, Demonstrations on the ways and means for the Preparation of Inexpensive and whole-some food were given at all the Child Welfare Centres whereby the mothers benefitted to a considerable extent.

Apart from the above a random diet survey was conducted at some of Child Welfare Centres and with the material gathered appropriate advice on matters relating to nutrition was given to mothers attending the Centres.

Baby Show.—The Annual Baby Show and Competition was conducted during the year in co-operation with the Indian Council for Child Welfare. The competition was open only to children of low income group. The total number of children who competed from all the Child Welfare Centres was 662. The competing children were divided into 3 age groups *viz.*, 1 to 4 months, 5 to 8 months and 9 to 12 months. First, Second and Third prizes were awarded to three winning children in each of the three age groups, besides the distribution of cloth bits to all the runners up numbering 81. The Prize distribution was done by Thirumathi Kochar at a function held on 3rd April, 1961. The participants exhibited definite improvement over those of the previous year and thus fulfilled the purpose for which the competition was started. A comparative statement of weights is as follows :—

		1960	1961
I. Group	... From 1 to 4 months ...	12.28 lbs.	13.26 lbs.
II. Group	... From 5 to 8 months ...	16.75 lbs.	18.20 lbs.
III. Group	... From 9 to 12 months ...	18.50 lbs.	19.28 lbs.

A note worthy feature of the year was the presentation of a rolling Trophy by the Worshipful Mayor for the best run C.W.C. For adjudging the best Centre the various services rendered were taken into consideration and marks allotted to each category of service according to its importance. During the year under report the Trophy was awarded to Choolai Maternity Home and the prize distribution was done on the Corporation Inauguration Day celebrated on 29th October, 1961.

FAMILY PLANNING SCHEME.

During this year 32 Father Information Centres and 44 Mother Information centres were functioning. Dr. N. Natarajan, Medical Officer, Family Planning Section was incharge of Father Information Centres and Dr. (Mrs.) V. S. Krishnaswamy, L.S., C.W.C., was incharge of the Mother Information Centres.

The following table gives the total No. of fathers instructed on Family Planning and the No. of Vascetomy Operations performed through the Staff of Father Information Centres of Corporation.

Total No. of Fathers instructed on F.P.	...	13,117
Total No. of Fathers operated for vascetomy through F.I. Centre	...	335
Total No. of Sheaths supplied to fathers	...	16,000 Sheeths.

The following table gives the total No. of Mothers instructed of F.P., the number of persons supplied with contraceptives, the number of persons operated for Salpingectomy and number of Fathers operated for vascetomy through the Staff of Mother Information Centres.

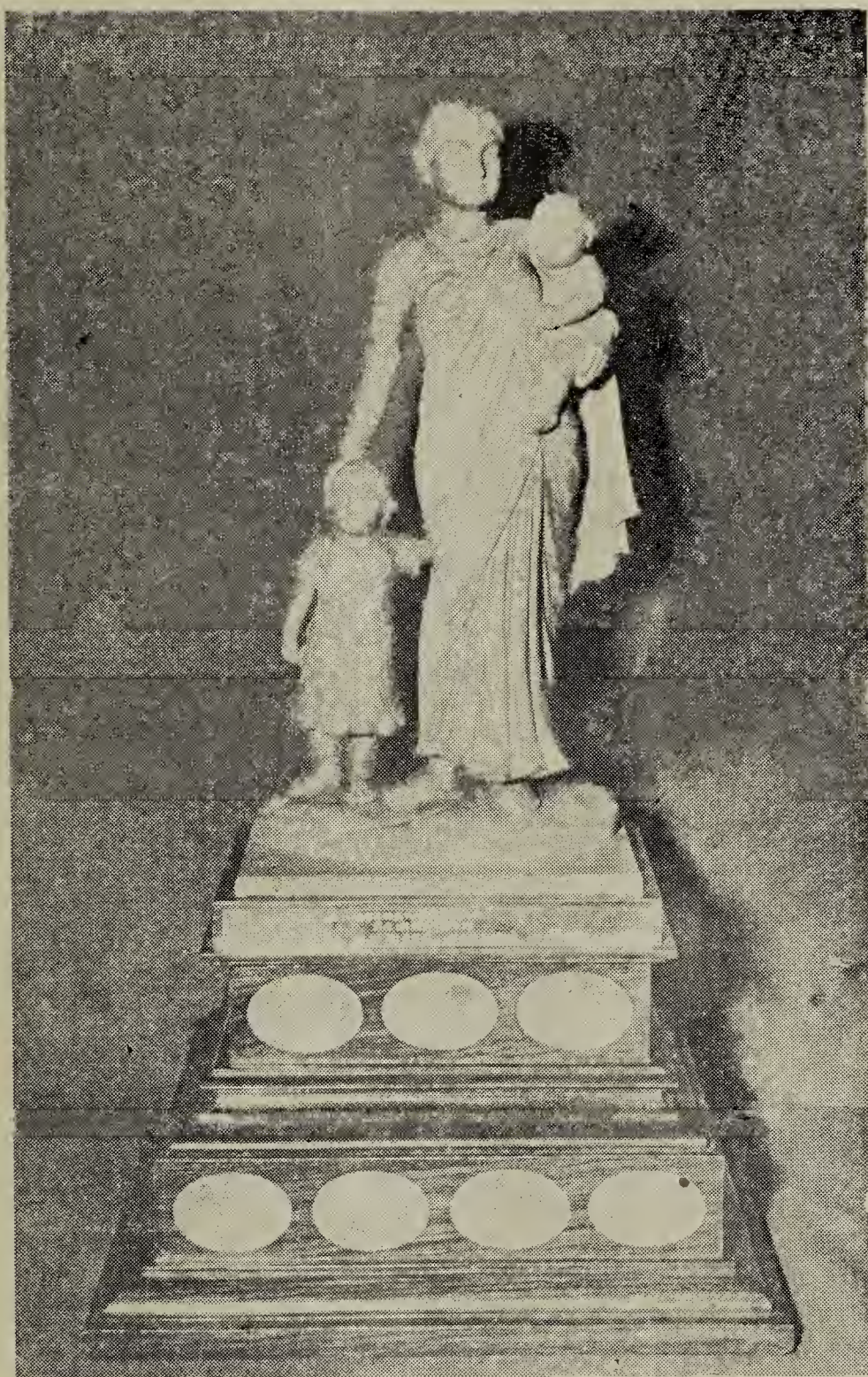
Total No. of Mothers advised on F.P.	...	64,283
Total No. of Mothers given with contraceptives	...	5,611
Total No. of Mothers operated for salpingcetomy.		602
Total No. of Fathers operated for Vascetomy through M.I. Centres	...	381

The location of the Father Information Centres and Mother Information Centres are furnished below.

I. *Father's Information Centres in the City—*

<i>S. No.</i>	<i>Address</i>
1.	319, Pycrofts Road, Pudupakkam.
2.	25, Pycrofts Road, Triplicane.
3.	25, Barber's Bridge Road, Krishnampet, Madras.
4.	101, Cutcheri Road, Mylapore.
5.	63, Cutcheri Road, Mylapore.
6.	65, Poonamallee High Road, (new Spur Tank Road)

Child Welfare Centre.



Rolling Trophy Presented by Thiru V. Munuswamy Worshipful Moyar.

FAMILY PLANNING SCHEME.—*con d.*I. *Fathers' Information Centres in the City—*

<i>S. No.</i>	<i>Address.</i>
7.	Shenoy Nagar.
8.	3/61, Arunachala Naicken Street, Chintadripet,.
9.	34, Poosala Gangu Reddy Street, Egmore.
10.	15, Noor Veerasamy Pillai Street, Egmore.
11.	107, Arcot Road, Kodambakkam.
12.	3, Sivagnanam Road, Theagarayanagar.
13.	1, Theagaraya Road, Theagarayanagar,.
14.	87, Suryanarayana Chetty Street, Royapuram.
15.	546, Thiruvottiyur High Road, Washermanpe .
16.	244, Mint Street, Madras.
17.	7, Linghi Chetty Street, Madras.
18.	161, Govindappa Naicken Street, Madras.
19.	17, Basin Water Works Street, Madras.
20.	Rotler Street, Vepery, Madras.
21.	55, Pulianthope High Road, Madras.
22.	6, Gangadeeswarar Koil Street, Purasawalkam.
23.	22, Gantz Road, Madavaram.
24.	55, Madhavaram High Road, Perambur.
25.	23, Paper Mills Road, Sembium.
26.	127, Konnur High Road, Ayanavaram.
27.	Old Arbitrator's Office (near Zoo).
28.	23, Kolandai Street, Park Town.
29.	2/104, Mount Road.
30.	1, Karaneswarar Koil Street, Saidapet.
31.	32/5, Velachery Road, Guindy.
32.	13, Greenways Road, Adyar.

II. *Mothers' Information Centres in the City :—*

<i>S. No.</i>	<i>Address</i>
1.	84, Lloyds Road, Mylapore.
2.	48, Bazaar Road, Mylapore.
3.	8, Nyniappa Maistry Street, Triplicane.
4.	65, Dr. Besant Road, Madras.
5.	34, Brodies Road, Madras.
6.	24/35, Soorappa Mudali Street,.
7.	19, Halls Road, Kilpauk.

FAMILY PLANNING SCHEME.—*contd.*II. *Mothers' Information Centres in the City:—*

<i>S. No.</i>	<i>Address.</i>
8.	1/61, Arunachala Naicken Street, Chintadripet.
9.	37, Lloyds Garden, Pudupet.
10.	27, Jagannathapuram, Second Street, Chetpet.
11.	15, Noor Veeraswami Iyer Street, Nungambakkam.
12.	68, Arcot Road, Kodambakkam.
13.	3, Sivagnanam Road, Thiyagaraya Nagar.
14.	383, Thiruvottiyur High Road, Tondiarpet.
15.	Corporation Model Lines, Palmyrakuppam.
16.	26, Suryanarayana Chetty Street, Royapuram.
17.	21/22, Kappal Polu Chetty Street, Royapuram.
18.	86, Thiruvottiyur High Road, Washermanpet.
19.	15, Zinda Sahib Street, Peddunaickenpet.
20.	44, Amman Koil Street, Georgetown.
21.	1/27, Appu Maistri Street, Georgetown.
22.	175, Thambu Chetty Street, Georgetown.
23.	52, Trevelyan Basin Street, Georgetown.
24.	15, Vijaya Vigneswarar Koil Street, Choolai.
25.	1/33, Gantz Road, Pulianthope.
26.	54, Perambur High Road, Perambur.
27.	14, Subbaroya Chetty Street, Nammalwarpet.
28.	8, Chellappan Mudali Street, Nammalwarpet.
29.	45, Paper Mills Road, Sembium.
30.	Bharathi Road, Perambur.
31.	United India Colony, Ayanavaram.
32.	109, Purasawalkam High Road, Madras.
33.	Ashok Vihar.
34.	4/8, Naval Hospital Road, Periamet.
35.	Malayya Market, Waltax Road.
36.	2/3, Periera Street, Park Town, Madras.
37.	16, Dr. Sadasivan Road, T. Nagar.
38.	104, Mount Road.
39.	Aziz Mulk Third Street, Thousand Lights.
40.	2, Jeen's Road, Saidapet.
41.	24, Danapal Chetty Street, Saidapet.
42.	6, Perumal Koil Street, Guindy.
43.	44, Vasantha Press Road, Arunachalapuram.
44.	52, Cochrane Basin Road, Basin Bridge.

SPECIAL HOME.

The year began with a strength of 274 inmates on 1-1-1961 and ended with a strength of 212 inmates on 31st December, 1961. Below are given the various figures in Table I.

TABLE I.

Particulars.	Males	Females	Total	Remarks
Strength on 1-1-1961	227	47	274	
Admissions	259	190	459	
Discharges	120	41	161	
Releases	149	69	218	
Deaths	52	22	74	
Escaps	27	5	4	
Deaths at Hospitals	1	3	4	
Escapes at Hospitals	...	12	12	
Admissions to City Hospitals	41	37	78	
Returs from City Hospitals	44	22	66	
Transfer to Govt. care Camp	1	...	1	
Strength on 31-12-1961	119	93	212	

There has been a notable increase in all the figures as compared with previous year's report.

Admissions according to ages are given below :—

<i>Age group.</i>	<i>No. of admissions.</i>
10 to 20 years	42
21 to 30 years	152
31 to 40 years	103
41 to 50 years	77
51 to 60 years	62
61 to 70 years	16
71 to 80 years	6
81 to 90 years	1
91 to 100 years	Nil
Total	459

Admissions to City Hospitals :—

I. D. Hospital	2
Government General Hospital	22
Government Stanley Hospital	19
Government Royapettah Hospital	10
Government Kasturba Gandhi Hospital	25
Total	78

There were less number of admissions during this year than in the last year but the number of admission does not give true picture of the situation though less number of cases were admitted, the number of cases referred for opinion and line of treatment were 269. Practically all the cases referred to the City Hospitals were leprosy cases. The reasons for referring them for treatment outside is that the disease has been present for a number of years and the inmates even at the time of admissions were badly infected. Some of the City hospitals are not willing to take them since they are found stealing from the other inmates and escaping with the Government linen issued to them.

Discharges, releases and escapes---

There were about the same number of cases discharged than the last year. The number of release were higher since more number of non-infective cases were put up for release and they satisfied the conditions for release.

The number of escapes were 32. There were a number of escapes during the latter half of the year, because of the trouble in the special home in latter half of September.

Deaths.—There was some increase under this head (1) The strength was higher (2) the condition of the inmates was bad even at the time of admission and there was poor response for treatment. Most of the inmates transferred from Government Care Camp were in a moribund state and they died here in spite of the treatment. The Police are admitting even obvious cancer cases which we are unable to treat. Even very old people, in an unhealthy state are admitted.

The cause of death is given below :—

		<i>Males.</i>	<i>Females'</i>
Chronic Enteritis	...	31	8
Heart failure	...	5	2
Septicemia	...	Nil	Nil
Tuberculosis	...	4	3
Old age and debility	...	12	9
Gastro enteritis and dysentery	...	Nil	Nil
Total	...	<u>52</u>	<u>22</u>

Practically, all the deaths were only among leprosy cases.

Visitors—

The following visitors inspected the Home on the dates noted against them :—

1. Deputy Commissioner of Police (Law and Order) ... 30- 6- 1961
2. Superintendent (Central Jail) ... Once a month.
3. Chief Presidency Magistrate ... 28- 9- 1961
4. Deputy Commissioner (Crimes) ... 22- 12- 1961
5. Assistant Director, Public Health : ... 21- 12- 1961

Occupational Therapy—

Though there are few occupations for the inmates to be engaged, there has been a general disinclination for them to do any work and they do not co-operate to the extent of producing bandage in the weaving section which is only used to dress their ulcers.

Weaving section—

Though there are five loöms, only two are in use for lack of hands to work them. Figures of production in the weaving section are given below :—

<i>Bandage cloth.</i>		<i>Cost of raw materials</i>	<i>Cost of finished products.</i>
		Rs. nP.	Rs. nP.
600 yards	...	106 40	222 00

With co-operation from the inmates these figures could have been doubled or trebled.

Gardening.—

Vegetables weighing 1,174 lbs., were grown in the garden and these replaced supplies by the contractors. The value of contract rate of 21 nP. per Kg. works out to Rs. 112-35 nP.

Conditions found in Leprosy cases.—

<i>Conditions.</i>		<i>Males.</i>	<i>Females.</i>	<i>Total.</i>
1. Skin diseases	...	96	41	137
2. Blindness	...	4	3	7
3. Tropic ulcers	...	91	39	130
5. Deafness	...	...	...	...
5. Paralysis of linous	...	...	...	...
6. Tuberculosis	...	6	5	11
7. Cardio vascular complications	...	2	3	5
8. Respiratory complications	...	5	5	10

Conditions found in healthy cases :—

		<i>Males.</i>	<i>Females.</i>	<i>Total.</i>
1. Mental	...	3	21	24
2. Cardio vascular condition	...	1	Nil	1
3. Respiratory	...	16	31	47
4. Blindness	...	6	10	16
5. Paralysis	...	...	...	...

CATTLE YARDS AND VETERINARY DISPENSARIES.

Details of licensing of Private cattle yards in the City :—

1.	No. of renewal applications received	...	...	1,297
2.	No. of applications recommended	...	...	869
3.	No. refused	...	...	428
4.	No. pending	...	...	Nil
5.	No. of new applications received	...	...	152
6.	No. of new applications recommended	...	...	25
7.	No. refused	...	...	127
8.	No. Pending	...	...	Nil
9.	No. of unlicensed Cattle Yards	...	...	603
10.	No. of notices issued in respect of Item 9	...	...	625
11.	No. prosecuted for non-compliance	...	...	598
12.	No. prosecuted for more than once	...	...	118
13.	No. improved and found fit for licence as a result of action taken	...	...	73
14.	No. evacuated in pursuance of action taken	...	...	94

PUBLIC CATTLE YARDS.

<i>S. No.</i>	<i>Dn. No.</i>	<i>Location.</i>	<i>Accommodation for No. of animals.</i>
1	25	41, Basin Bridge Road	212
2	47	75, Venkatadry Naicken Street	150
3	70	43, Singanna Chetty Street	58
4	74	Arimuthu Maistry Street	30
Total			450

VETERINARY DISPENSARIES.

Veterinary Dispensaries are run by the Corporation of Madras. These institutions continued to cater to the needs of public as in previous year.

1. Veterinary Dispensary, ' B ' Cattle Depot at Basin Bridge Road.
2. Veterinary Dispensary, ' D ' Cattle Depot, Pudupet.
3. Veterinary Dispensary, ' F ' Cattle Depot, Mylapore.
4. Veterinary Dispensary, ' G ' Cattle Depot, Perambur.
5. Veterinary Dispensary, ' H ' Cattle Depot, Thirumalai Pillai Road, Nungambakkam.

Name of Veterinary Dispensary.	Bovines			Equines			Others			Grand Total
	New.	Old.	Total.	New	Old	Total.	New	Old.	Total	
B. Depot	1,909	1,512	3,421	11	16	27	1,822	1,119	2,941	6,389
D. Depot	1,753	1,682	3,435	5	7	12	3,991	3,713	7,704	11,151
F. Depot	2,974	3,495	6,469	8	8	16	2,634	2,984	5,618	12,103
G. Depot	375	550	925	3	5	8	264	561	825	1,758
H. Depot	1,259	4,681	5,940	10	17	27	1,516	4,859	6,375	12,342
Total ...	8,270	11,920	20,190	37	53	90	10,227	13,236	23,463	43,743

Specimens sent to Madras Veterinary College ... 12

Artificial inseminations done at B, F & H Depots—

Cows	...	...	...	...	...	2,131
She Buffaloes	...	...	...	...	...	798
					Total.	2,929

No. of Castrations done ... 19

Amount collected during the year 1961 ... Rs. 832-50 nP.

ZOOLOGICAL GARDENS

Situated within 20 acres enclosure in the heart of the City, the Madras Zoological Gardens continued to provide utmost pleasure and interest to a great number of people. About half a million persons visited the Zoo and it had been estimated that 1,300 adults and 150 children of school going age visited every day.

Distinguished Visitors.—During the year 1961, the following distinguished visitors paid a visit to the Gardens—

1. The Director, Lincoln Park Zoo, Chickage, visited the gardens on 25th May 1961.

2. The Art Director of the Bulgarian Music and Dance Group Mr. Kiri Stepanev, visited the Zoo on 17th December 1961.

3. The Members of the Estimate Committee of Maharashtra Legislature visited on 20th December 1961.

4. The Soviet President Mr. Brezhnev accompanied by his wife and party visited on 22nd December 1961.

Live-stock.—At the beginning of the calendar year 1961, there were 628 animals and birds. There were certain additions by births, purchases and gift and the total worked out to 68. Besides, there were depletion of stock due to disposal by sales, exchanges and deaths. The total stock as on 31st December 1961 wrked out to 568.

The following statement will furnish details for the calendar year 1961 :—

Live-stock on 1-1-61.	Additions			Disposals.			Stock on on 31-12-61	
	Births	Purchases	Gifts	Sales	Gifts	Deaths		
<i>Mammals—</i>								
243	30	6	18	54	7	39	197	
<i>Birds—</i>								
362	6	8	...	2	...	25	349	
<i>Reptiles—</i>								
23	...	...	...	...	...	1	22
Total	628	36	14	18	56	7	65	568

Additions : (a) Free Gifts.—One full grown Leopard was presented by the State Forest Department. One Elephant she-calf by name ' Volga Lakshmi ', was offered as gift by one Mr. Woodland Khaler. The institute records its deep appreciation to his munificent gift. Besides, there were other minor gifts.

(b) Births and hatches.—There were certain births and hatches and the following is the list :—

- 3 Axis or spotted deer.
- 12 Guinea Pigs.
- 1 Long eared goat.
- 2 Mouse Deer.
- 6 Pigeons of sorts.
- 2 Sambur Deer.
- 10 White Rats.

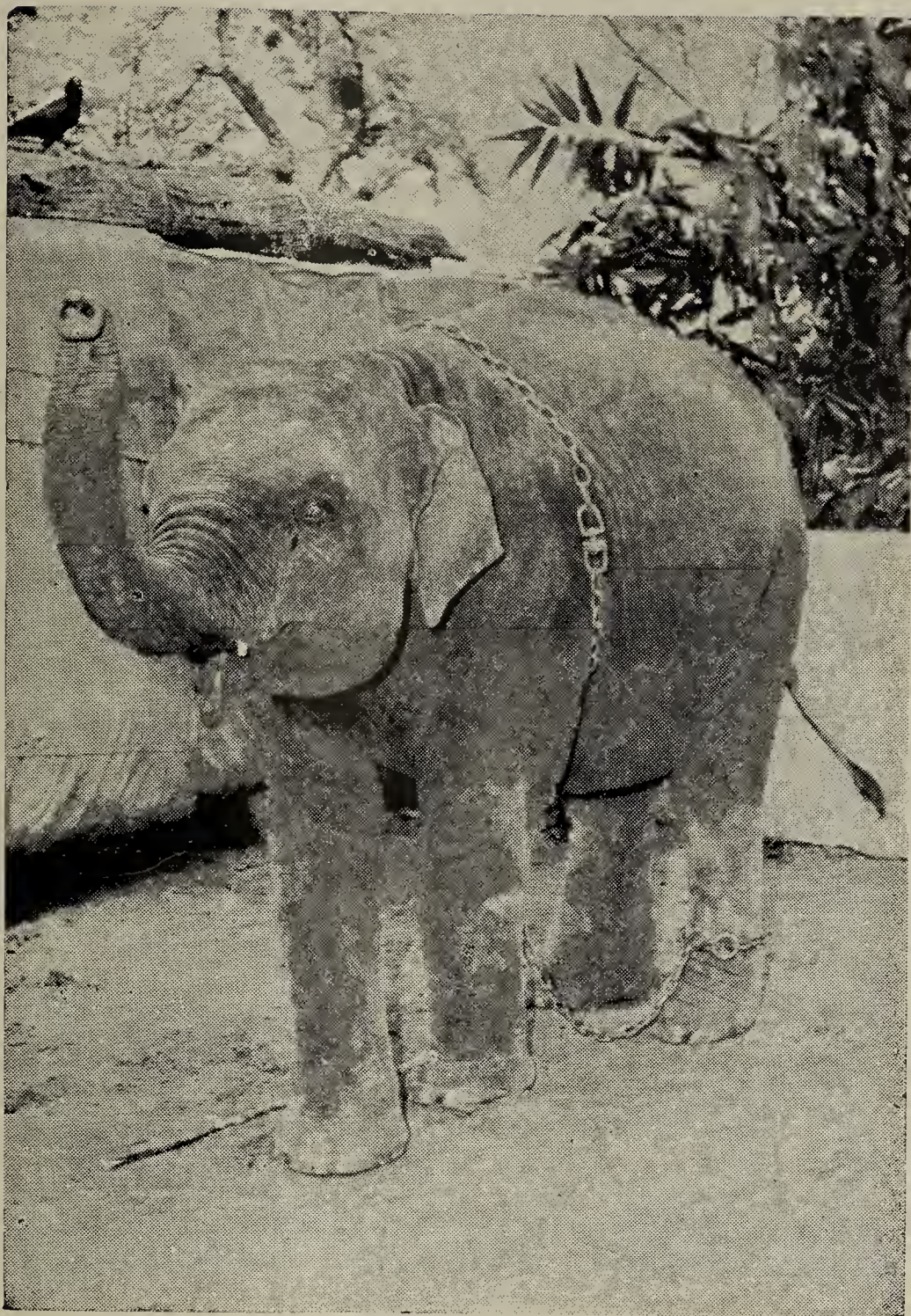
*(c) Purchases :—*The following list of animals and birds were acquired by purchase :—

- 1 pair Chimpanzees.
- 2 pairs Californian Sea Lions.
- 4 Black Swans.
- 4 White Pea Fowls.

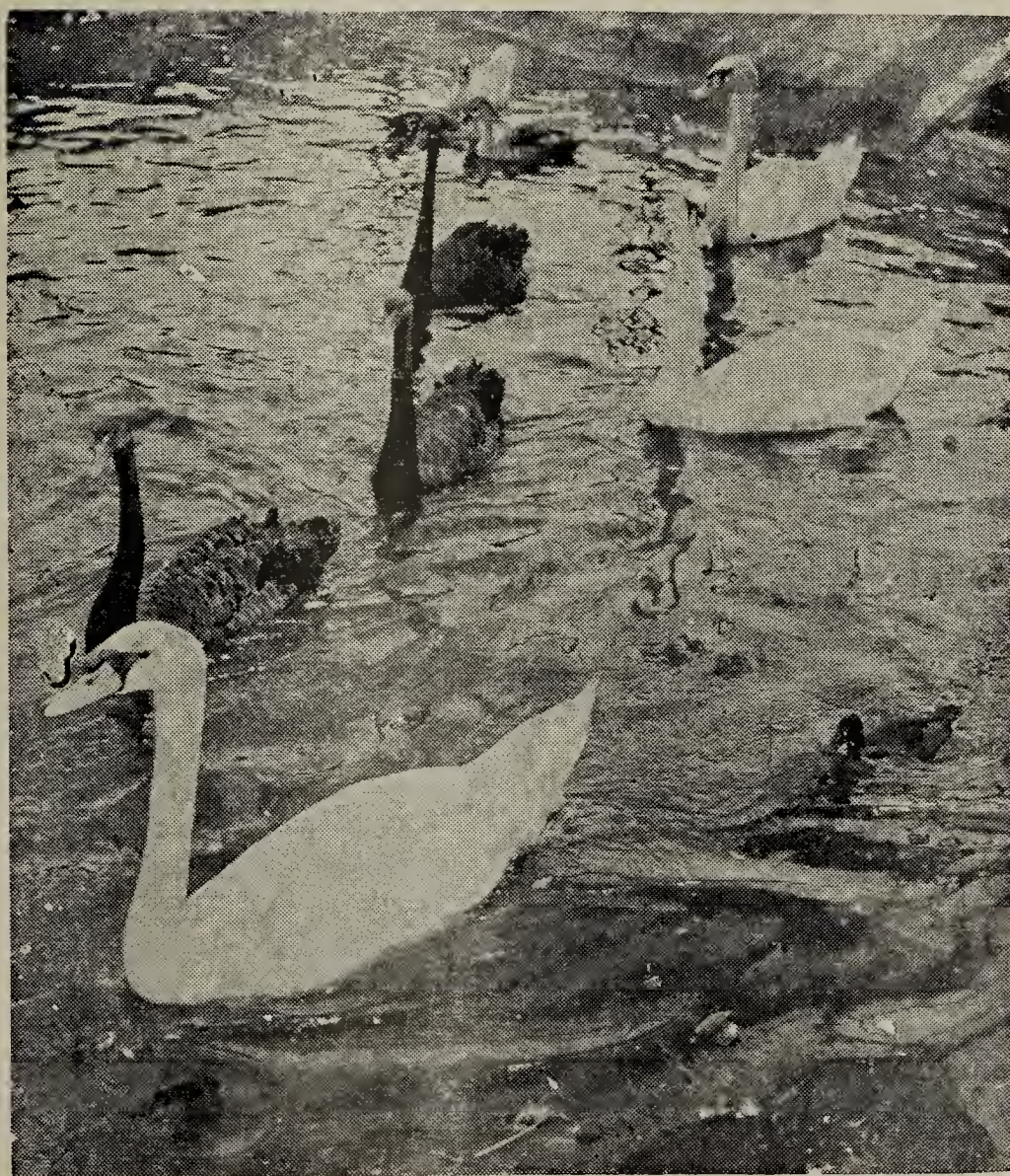
Of these acquisitions, the Sea Lions were rare for the Indian Zoological Gardens and every effort was made to conserve them.

Reduction : (a) Deaths.—There were certain reductions due to deaths. Of the two pairs of Sea Lions acquired, one pair died of acute gastritis. It is a pleasure to record here the help received from the Madras Veterinary College for pathological examination and for other aspects in the proper maintenance of the Zoo live-stock. The carcass of Sea Lion that died was offerd to the Madras Musuem for exhibiting in their Zoological Section.

New additions to the Zoo.

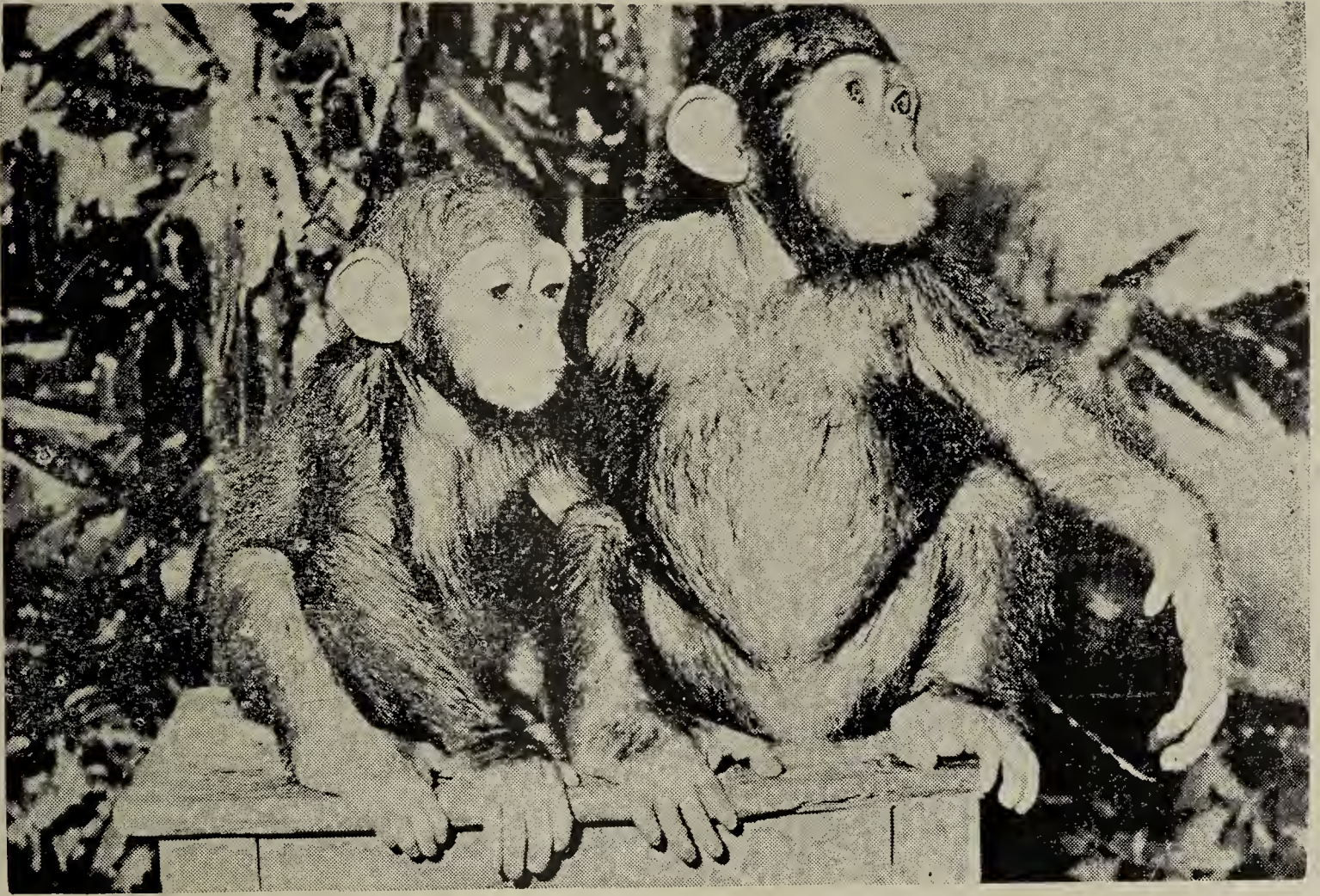


Baby Elephant.

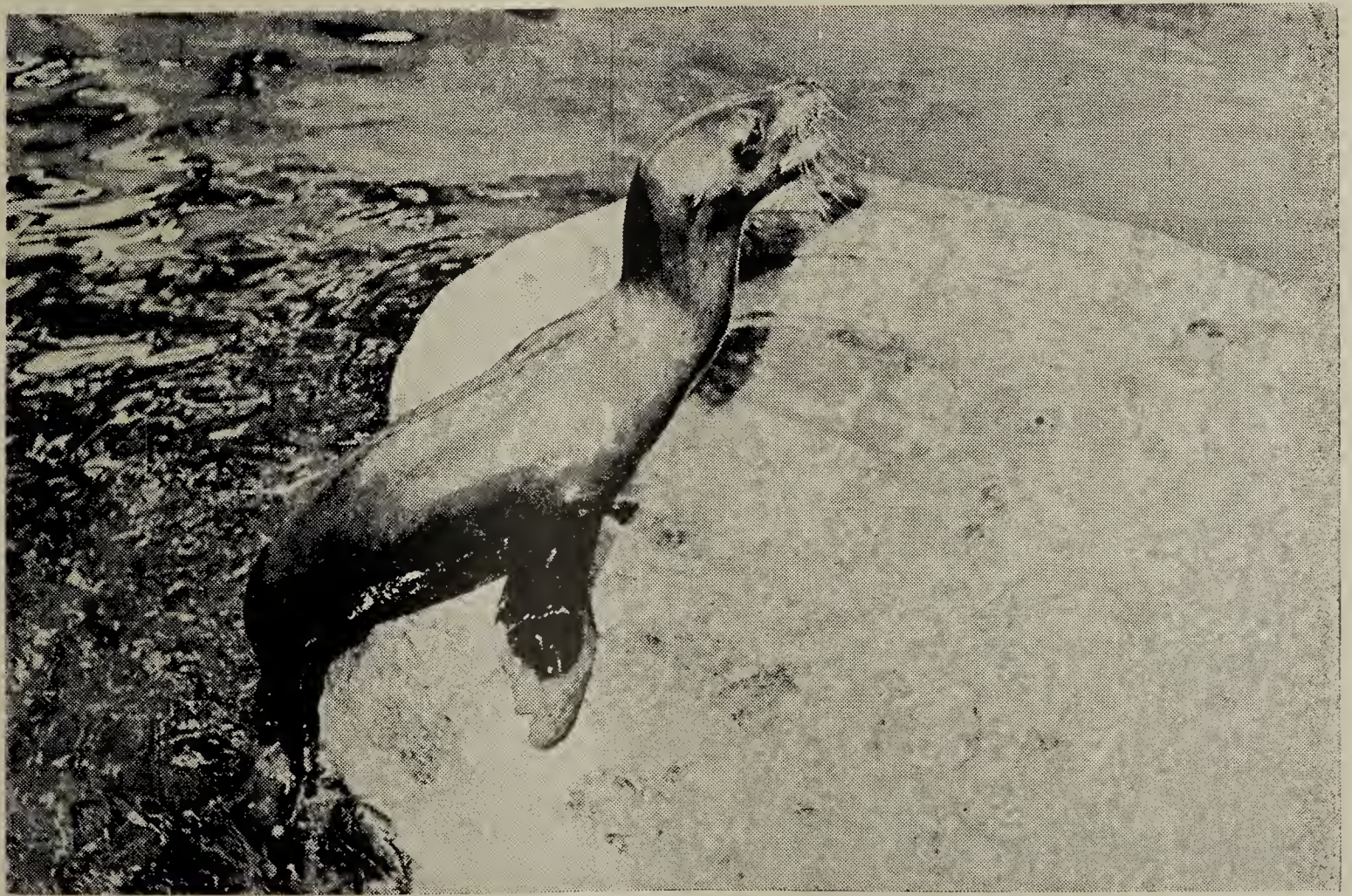


Black and White Swans.

New additions to the Zoo.



Chimps.



Sea Lion

One Camel died of acute pulmonary oedema.

The deaths worked out to 9% only.

(b) *Offered as gift.*—Five Axis Deer and two Burkshire Pigs were given away as gifts to the officer in charge of Sathanur Dam and to the Principal, Veterinary College, Madras, respectively.

(c) *By sales.*—The following were disposed of by sales being surplus stock.

- 3 Axis Deer
- 2 Baboons
- 20 Burkshire Pigs
- 2 Emus
- 5 Guinea Pigs
- 4 Long Eared Goats
- 4 Mouse Deer
- 9 Rabbits
- 2 Tigers
- 3 White Bucks
- 2 Zebras

Wild Life.—Wild Life Day was celebrated as usual in the institution during the first week of August in the year under report.

Revenue.—The right of collection of fees at the entrance of the Zoological Gardens was let for the financial year 1961-62 for a sum of Rs. 1,52,205.

2. The right of running Cafe inside Zoo for 1961-62 was let for Rs. 15,005.

3. Plying Pleasure Boats inside the Zoo lake was also let on contract for the financial year 1961-62 for Rs. 8,010.

Besides, there were miscellaneous receipts collected by way of disposal, hire of animal and birds etc., which for the calendar year 1961 worked out to Rs. 1,599-25 nP.

Staff.—Thiru T. S. Ramaswami, M.A., M.Sc., continued to be acting Superintendent, Zoological Gardens untill 13th December, 1961 and from 14th December, 1961 Thiru D. Sankaran, B.Sc., who was on foreign service with the Madras City Council for Child Welfare as Superintendent, reverted to Madras Corporation to his substantive post Superintendent, Madras Zoological Gardens and he continued to be in charge till the end of the Calendar Year 1961. Dr. C. I. John, Veterinary Officer, was the Medical Officer in charge of the Health of the Zoo Live-stock for the year under report.

LETHAL CHAMBER.

Object.—Dog ' The man's most faithful and Trusted Servant ' is the best of domestic pets if they are properly cared for and maintained by their owners. They become a source of danger if they become rabid. Rabies, the most horrible disease that man shudders to suffer is transmitted by rabid dogs, if they bite

or snap human beings. They become a nuisance if they are allowed to stray and breed uncared for. Hence the Corporation of Madras is maintaining Lethal Chamber to prevent the spread of rabies and to control the nuisance due to stray dogs.

Institution and its working.—In the Lethal Chamber, there is 'Dogs Home' and electrocution station under the supervision of a Sanitary Inspector. All the ownerless dogs found straying in any street or place frequented by public like markets, slaughter house, cart stands, choultries, public offices, hospitals, etc., are seized by expert dog catchers by noosing and they are brought to the 'Dogs Home' by the motor vans specially provided for the purpose. They are detained for 3 days (72 hours) in well maintained Dogs Home, fed and cared for. These dogs are being released on payment of licence fee of Rs. 1. 25 nP. and the detention charges at Re. 0. 25 nP. per day by their owners. The unclaimed dogs are electrocuted and buried on the fourth day. The dog catchers are paid 19 nP. for every dog caught as reward. There are two vans provided for rounding up the stray or rabid dogs from the 100 divisions of the City of Madras.

Human Methods.—The dogs are caught with minimum force without clubbing, beating and dragging in the public which will raise sentimental objections from dog loving public.

The killing of dogs is done by electrocution which is most modern, painless, instantaneous and sanitary method known. Care is also being taken to see that no dog sees while its companion is being killed which causes mental agony to the sensitive animals.

Educational Visits.—Control of rabies being an academical subject, students from the following institutions for whom the salient features of the working of the institutions were explained. Demonstrations of noosing and electrocution were conducted for the benefit of these students.

1. Medical Internees of Stanley Medical College, Madras.
2. Medical Internees of Madras Medical College.
3. Medical Internees of Christian Medical College, Vellore.
3. Medical Internees of Government Medical College, Pondicherry.
5. Students undergoing training in Health Visitor's Course.
6. Students undergoing training in Sanitary Inspector Course
7. Students undergoing training in Sick Nursing.

Further the Medical Colleges in the City and Vellore and Veterinary College have been supplied with 701 dogs for experimental purposes.

Conclusion.—Apart from the work done in the City limits, the Municipality of Tiruvottiyur, Panchayat Board, Villivakkam and Suptd., T. B. Sanatorium, Tambaram have requested our help to combat the dog nuisance. With the help of our dog catchers the stray dogs were caught from the above places and they were brought to the Lethal Chamber in their own conveyance for electrocution on payment of 0.25 nP. for every dog electrocuted and buried.

ANNEXURE I.

PARTICULARS OF WORK DURING THE YEAR 1961.

S. No.	Particulars.	No of Dogs.	No. of Bitches.
1.	No. of dogs left over on the last day of December, 1960 ...	118	122
2.	No. of dogs admitted during the year 1961	26,351	27,675
3.	Total No. of dogs ...	26,469	27,797
4.	No. of dogs destroyed during the year 1961	22,441	26,118
5.	No. of dogs released on payment to the owner	3,377	1,302
6.	No. of dogs given to the medical colleges for experimental purposes on request ...	493	211
7.	No. of dogs put in auction during 1961 ...	Nil	Nil
8.	Balance No. of dogs remaining on the 31-12-1961 ...	158	166
	Total ...	26,469	27,797

Particulars of Work turned out at Lethal Chamber during the Calendar Year, 1961.

Month	No. of dogs admitted		No. of dogs destroyed		No. of dogs given to the Medical Colleges		No. of dogs released	
	Dog.	Bitch.	Dog.	Bitch.	Dog.	Bitch.	Dog.	Bitch.
January ...	2,030	2,118	1,633	1,927	40	28	340	148
February ...	2,201	2,338	1,888	2,186	31	16	277	129
March ...	2,275	2,358	2,038	2,286	40	4	213	80
April ...	1,478	1,614	1,305	1,532	6	2	135	50
May ...	2,444	2,575	2,164	2,461	9	5	273	105
June ...	2,547	2,658	2,237	2,545	60	6	278	143
July ...	2,468	2,581	2,003	2,396	72	10	361	143
August ...	2,472	2,538	2,085	2,400	36	27	339	99
September...	2,379	2,546	2,117	2,447	31	21	255	102
October ...	1,864	1,970	1,607	1,894	57	20	215	71
November...	2,053	2,148	1,647	1,987	61	43	315	89
December ...	2,140	2,231	1,717	2,057	50	29	376	143
Total ...	26,351	27,675	22,441	26,118	493	211	3,377	1,302

Remarks.—No. of dogs left over on the left day of December 1960. are 118 Dogs 122 Bitches.

No. of dogs remaining in the Lethal Chamber on the last day of December 1962 are 158 Dogs, 166 Bitches.

INSTITUTIONS UNDER THE HEALTH DEPARTMENT
CORPORATION OF MADRAS.

Health Department.

Offices of Registrar of Births, Deaths and Vaccination Depots.

Office Hours—7-30 to 10 a.m. and 3-30 to 5-30 p.m.
except Sundays.

<i>Serial No.</i>	<i>Divisions served.</i>	<i>Location.</i>
1	1, 2, 3, 7, 8 & 9.	87, Suryanarayana Chetty Street, Royapuram.
2	4, 5, 6, 10, 21, 22 & 23.	545, Thiruvottiyur High Road, Washermenpet.
3	32 ...	55, Madavaram High Road, Perambur (evenings)
4	31 ...	22, Gantz Road (Mornings).
5	11, 12, 16, 17, 24, 25 & 26.	244, Mint Street.
6	13, 14, 15 & 20...	47, Linghi Chetty Street.
7	18 & 19 ...	161, Govindappa Naicken Street.
8	27, 28 & 29 ...	17, Basin Water Works Street.
9	36 & 37, 39 & 40.	Rotler Street, Vepery.
10	33, 34, 35 & 38 ...	55, Pulianthope High Road.
11	41, 42 & 43 ...	23, Paper Mills Road, Sembium.
12	44 & 45 ...	127, Konnur High Road, Ayanavaram.
13	51 & 91	Shenoy Nagar.
14	52 ...	65, Poonamallee High Road, Near Spur Tank.
15	46, 47, 48, 49, 50 & 61.	6, Gangadareswarar Koil Street.
16	62 & 63 ...	Zoo Compound.
17	30 & 64 ...	23, Kolandai Street, Park Town.
18	65, 66 & 70 ...	3/61, Arunachala Naicken Street, Chintadripet.
19	67, 68 & 69 ...	34, Poosala Gengu Reddy Street, Egmore.
20	53, 54, 55 & 56...	15, Noor Veeraswamy Iyer Street, Nungambakkam
21	92 & 96 ...	109, Arcot Road, Kodambakkam.
22	93 ...	1, Sir Theagaraya Road, T. Nagar.
23	57 to 60 & 71 to 73 ...	369, Pycrofts Road, Pudupakkam.

<i>Serial No.</i>	<i>Divisions served.</i>	<i>Location.</i>
24	74 to 77 ...	25, Pycrofts Road, Triplicane.
25	78 to 80 ...	25, B. B. Road, Krishnampet.
26	82 to 84 ...	Royapettah High Road.
27	85 & 86 ...	63, Kutcheri Road, Mylapore.
28	81, 87 & 88 ...	2/104, Mount Road, Teynampet.
29	94 & 95 ...	3, Sivagnanam Road, T. Nagar.
30	97, 98 and 100 ...	1, Karaneeswarar Koil Street, Saidapet.
31	99 ...	32/5, Velacheri Road, Guindy.
32	89 & 90 ...	13, Greenways Road, Adyar.

Office of Sanitary Inspectors.

1	1 & 2 ...	81, Suryanarayana Chetty Street, Kasimode.
2	3 & 4 ...	Kalmandapam Road, Royapuram.
3	5 & 6 ...	546, Thiruvottiyur High Road, Washermenpet.
4	7 & 8 ...	151, Mannarswamy Koil Street, Royapuram.
5	9 & 10 ...	Do.
6	11 & 12 ...	5/31, Saint Xaiver Street, G. T. Madras.
7	13 & 14 ...	42, Marakayar Labbai Street.
8	15 & 16 ...	31, St. Xavier Street, G.T., Madras.
9	17 & 18 ...	161, Govindappa Naicken Street.
10	19 ...	48, Thatha Muthiappan Street.
11	20 ...	32, Thambu Chetty Street.
12	21, 22 & 23 ...	546, T. H. Road, Madras-21.
13	24 & 25 ...	244, Mint Street.
14	26, 27 & 28 ...	183, Wall Tax Road.
15	29 & 30 ...	96, Wall Tax Road.
16	31 & 32 ...	40, Barathy Road, Perambur.
17	33 ...	Gantz Road.
18	34 & 35 ...	1/A, Bashiam Reddy 1st Street.
19	36 & 37 ...	Kalathiappa Mudali Street, Choolai.
	33	

<i>Serial No.</i>	<i>Divisions served.</i>	<i>Location.</i>
20	38	... 55, Pulianthope High Road.
21	39 & 40	... Kalathiappa Mudali Street, Choolai.
22	41 & 42	... 23, Paper Mills Road, Sembiam.
23	43 & 45	... 127, Konnur High Road.
24	44 & 46	... 1/B, Bashiam Reddy 1st Street.
25	47 & 48	... Smith Field Market, Choolai.
26	49 & 50	... Smith Field Market, Choolai.
27	51 & 52	... Shenoy Nagar Market.
28	53 & 54	... 15-B, Nungambakkam High Road.
29	55 & 56	... 21, Village Road, Nungambakkam.
30	57 & 58	... 369, Pycrofts Road, Amir Mahal.
31	59 & 60	... Do.
32	61	... 65, Poonamallee High Road, (Near Napier Park.)
33	62 & 63	... People's Park, Near Zoo.
34	64	... 23, Kolandai Street, Park Town.
35	65 & 66	... Vedagiri Maistry Street, Chintadripet.
36	67	... 33, Poosala Gengu Reddi Street.
37	68 & 69	... 35, Veerabadrachari Street, Pudupet.
38	70	... Adikesavalu Street, Narasingapuram.
39	71 & 72	... 1, Balamuthu Street, Madras-2.
40	73	... 25, Pycrofts Road.
41	74	... 25, Pycrofts Road, Triplicane.
42	75	... 25, Pycrofts Road.
43	76 & 77	... 22, Chengalvaroya Mudali Street.
44	78	... 25, Barbers Bridge Road, Krishnampet.
45	79 & 80	... 25, Barbers Bridge Road.
46	81 & 82	... 2/104, Mount Road.
47	83 & 84	... 55, Royapettah High Road, Madras-14.
48	85 & 86	... 100, Kutchery Road.
49	87 & 88	... 2/104, Mount Road, Madras-18.

<i>Serial No.</i>	<i>Divisions served.</i>	<i>Location.</i>
50	89 & 90 ...	13, Greenways Road, Adyar.
51	91 & 92 ...	107, Arcot Road, Kodambakkam.
52	93 & 94 ...	Theagaraya Road, T. Nagar.
53	95 & 96 ...	5, Sivagnanam Street.
54	97 & 98 ...	16, Koothadum Pillaiar Koil Street.
55	99 ...	32/5, Velachery Road, Guindy.
56	100 ...	16, Koothadum Pillaiar Koil Street.

Dispensaries.

<i>Serial No.</i>	<i>Divn. No.</i>	<i>Name of Dispensary.</i>	<i>Location.</i>
1	1 to 3	Royapuram ...	2/87, Suryanarayana Chetty Street.
2	3 & 8	Palmyra Kuppam ...	Kalmandapam Road.
3	7	Royapuram Siddha ...	109, Adam Sahib Street.
4	4	Sanjeevarayanpet ...	21/22, Kappal Polu Chetty Street.
5	11	Seven Wells ...	1/50, Saint Xavier Street.
6	14	Harbour ...	6/7, Adam Street.
7	15	Muthialpet ...	Geils Street.
8	19	Mofuskhan Garden ...	55, Thatha Muthiappan Street.
9	20	Mannady ...	47, Linghi Chetty Street.
10	23	Washermenpet ...	85, Thiruvottiyur High Road.
11	25	Mint ...	244, Mint Street.
12	25	B. Bridge ...	51, Basin Bridge Road.
13	26	Trevelyn Basin ...	16, Basin Water Works Street.
14	31	Perambur ...	55, Madavaram High Road.
15	32	Vyasarpady ...	Hope Lodge, Gantz Road.
16	33	Pulianthope Unani ...	13, Pulianthope High Road.
17	34	Otteri ...	Perambur Barracks.
18	35	Otteri Siddha ...	1/B, Bashiam Reddy Street.

<i>Serial No.</i>	<i>Divn. No.</i>	<i>Name of Dispensary.</i>	<i>Location.</i>
19	39	Choolai Siddha ...	Alathur Subramania Achari Street.
20	40	Baliah Naidu ...	Rotlers Street.
21	42	Sembiam ...	171, Paper Mills Road.
22	44	Ayanavaram ...	127, Kunnur High Raod.
23	46	Nammalvarpet ...	21-A, Subbaraya Chetty Street 2nd Lane.
24	48	Kosapet ...	7/1, Chellappa Mudali Street.
25	48	Kosapet (New) ...	Sachidanandam Street, Kosapet
26	51	Aminjikarai ...	171, Poonamallee High Road.
27	53	Chetput ...	24, McNichols Road.
28	55	Nungabakkam ...	15, Noor Veeraswamy Iyer Street.
29	56	Thousand Lights ...	Model School Street.
30	59	Pudupakkam ...	368, Pycrofts Road.
31	61	Kilpauk ...	6, Gangathareswarar Koil Street.
32	65	Chintadripet ...	2/61, Arunachala Naicken Street.
33	67	Egmore ...	34, Poosala Gengu Reddi Street.
34	69	Pudupet ...	83, Harris Road.
35	71	Thiruvateeswaranpet	102, Thayar Sahib Street.
36	72	Chepauk ...	Khana Bhaugh Street.
37	73 & 74	Triplicane ...	25, Pycrofts Road.
38	77	Zambazaar ...	Gazette Begum Street.
39	80	Krishnampet ...	Dr. Natesan Road.
40	84	Mylapore (North) ...	Karaneswarar Pagoda Street.
41	85	Mylapore (South) ...	101, Kutchery Road.
42	88	Teynampet ...	2/104, Mount Road.
43	89 & 90	Adayar ...	13, Greenways Road.
44	92	Kodambakkam ...	107, Arcot Road.
45	93	T. Nagar (North) ...	4, Dr. Sadhasivam Road.
46	94	T. Nagar (South) ...	3, Sivagnanam Road.
47	97	Saidapet ...	51, Sadayappa Mudali Street.
48	99	Guindy ...	1-A, Sathani Street.

Clinics :—

Veneral Clinic	...	82/83, Strahans Road, Perambur.
Leprosy Clinic	...	(1) Ice House Road (Besant Road) Triplicane. (2) Hope Lodge, Vyasarpady.
Tuberculosis Clinics	...	Pulianthope High Road. Tel. No. 32476 Government General Hospital. Government Stanley Hospital. Government Royapettah Hospital. Government Kasturba Gandhi Hospital.

Laboratories :—

Public Analyst's Laboratory, Ripon Buildings. Tel. No. 39171
 Public Health Clinical Laboratory, Ripon Buildings. Tel. No. 39171
 Water Analyst's Laboratory, Kilpauk Water Works. Tel. No. 61197
 Malaria Laboratory, Trevelyan Basin Water Works Street.

Hospital :—

Infectious Diseases Hospital, Tiruvottiyur High Road, Tondiarpet. Tel. Nos. 51036 and 51037

Other Institutions :—

Ashok Vihar, Health & Recreation Centre, Peoples Park (Tel. No. 33259)
 Zoological Gardens, Peoples Park (Tel. No. 31414)
 Lethal Chamber, Basin Road.
 Hearse—Corporation Lorry Station Telephone No. 31837
 Special Home for the Diseased and Infirm, Krishnampet Tel. No. 86377

Midday Meals Centres :—

- (1) Basin Bridge Road, Kondithope, North Range.
- (2) Iya Mudaly Street, Chintadripet, Central Range. Tel. No. 85763
- (3) Conran Smith Road, Gopalapuram, South Range.

Veterinary Dispensaries :—

Basin Bridge Road, Kondithope.
 Barbers Bridge Road, Krishnampet.
 Prasanna Vinayagar Koil Street, Mylapore.
 Harris Road, Pudupet.

Corporation Cattle Yards :—

Basin Bridge Road, Kondithope.
 Singanna Chetty Street, Chintadripet.
 Vinaitheertha Vinayaga Mudali Street, Kosapet.
 Venkatarangam Pillai Street, Saidapet.

Slaughter Houses :—

Sheep and Cattle—

Gantz Road, Perambur Barracks. Tel. No. 32027
 Alandur Road, Saidapet.

Pigs—

Junction of Basin Road and Pulianthope High Road.

Burial and Burning Grounds.

<i>Serial No.</i>	<i>Divn. No.</i>	<i>Name of Burial Ground.</i>	<i>Location.</i>
1	2	Kasimode Burial and Burning Ground.	Suryanarayana Chetty Street.
2	5	St. Thomas Cemetery ...	West Cemetery Road.
3	8	Parsee Burial Ground ...	37-E, Main Road, Royapuram.
4	9	St. Roques Cemetery ...	6, Monegar Choultry Road
5	9	Christian Mission Society Burial Ground.	Old Slaughter House Road.
6	14	Bora Muslims Burial Ground ...	1/146, Angappa Naicken Street.
7	23	Sait Mosque Burial Grounds ...	556, Thiruvottiyur High Road.
8	24	Washermanpet Hindu Burial Ground.	Kathiwalkkam High Road.
9	31	Melapathi Ponnappa Mudaliar Street Burial Ground.	Melapathi Ponnappa Mudali Street.
10	32	Mannady Burial Ground ...	Mannady Road.
11	32	Subedar Muslim Burial Ground.	Mannady Road, Gantz Road.
12	38	Choolai Burning Ground ...	Basin Bridge Road.
13	38	Gujarathi Jain Burning Ground.	Ansari Road.
14	38	Vyasa Burning Ground ...	D'Millers Road.
15	41	Thangal Burial and Burning Grounds.	Thangal, Sembiam.
16	43	Battu Mode Burial Ground ...	Agaram; Near North of Villivakkam Station.
17	47	Missory Synod Luther Mission Cemetery.	Brick Kiln Road.
18	49	Purasawalkam Cemetery ...	Perambur Barracks Street
19	51	Velangadu Burial and Burning Grounds.	South of Avadi.
20	50	Ottery Burial and Burning Ground.	Brick Kiln Road.
21	50	Subadar Makhan Burial Ground.	Thandavaraya Mudali Street
22	50	Lutheran Mission Cemetery ...	Brick Kiln Street.
23	51	Ayanavaram Burial Ground ...	Ayanavaram.
24	51	Kilpauk Christian Corporation Old Burial Ground.	Shenoy Nagar.
25	51	Amminjikarai Muslim Burial Grounds.	Aminjikarai.
26	51	Kilpauk New Cemetery ...	15, Garden St.
27	51	Buddhist Burial Ground ...	Thandavarayan Street.

<i>Serial No.</i>	<i>Divn. No.</i>	<i>Names of Burial Grounds.</i>	<i>Location.</i>
28	51	Reddythope (Periakudal) Muslim Burial Ground.	Shenoy Nagar (Riverside).
29	51	Arumbakkam Burial and Burning Ground.	Arumbakkam.
30	51	Naduvankarai Burial and Burning Ground.	Do.
31	51	Mullam Village B.G. ...	Arumbakkam.
32	54	Sterling Road Burial and Burning Ground.	Sterling Road.
33	57	St. George Cathedral Burial Ground.	Mount Road.
34	59	Rama Rao Makhan Burial ground.	Peters Road.
35	71	St. Patric Burial Ground ...	Body Guard Road.
36	71	Sacred Heart Burial Ground ...	Do.
37	71	St. Andrews Burial Ground ...	Do.
38	71	Armenian Street Burial Ground	Do.
39	71	St. Mary's Burial Ground ...	Do.
40	79	Desthagir Sahib Durkha Burial Ground.	82, Dr. Natesan Road.
41	79	Syed Karimulla Sahib Burial Ground.	Do.
42	79	Pappu Masthan Durkha Burial Ground.	Lloyds Road.
43	79	Haji Ismail Maccan Burial Ground.	Lloyds Road.
44	80	Krishnampet Burial and Burning Ground.	Gajapathi Lala Street.
45	80	Kudratha Alimakhan Burial Ground.	42, Dr. Natesan Road.
46	80	Neela Badth Durkha Burial Ground.	Behind Lady Wellington College.
47	84	Mylapore Hindu Burial and Burning Ground.	Karneeswarar Koil Street,
48	86	Elapatha Mada Coil Cemetery.	66, St. Mary s Road.
49	89	Qubiel Cemetery ...	Santhome High Road.
50	90	Urur Burial and Burning Ground	Urur.
51	91	Aminjikarai Burial Ground ...	Lime Kiln Street.
52	92	Puliyur Burning and Burial Ground.	Puliyur.
53	92	Kodambakkam Burial and Burning Ground.	Kodambakkam.
54	95	Mambalam Burial and Burning Ground.	Kannanpet, T. Nagar.
55	97	Jones Road Burial and Burning Ground.	Jones Road.

<i>Serial No.</i>	<i>Divn. No.</i>	<i>Name of Burial Ground.</i>	<i>Location.</i>
56	99	Jain Adayar Burial and Burning Ground.	Adayar.
57	99	Kottur Burial and Burning Ground.	Kottur.
58	99	Vellichery Burial and Burning Ground.	Velacheri Road.
59	99	Kallikandra Burial and Burning Ground.	Kallikandra.
60	99	Pathupet Burial and Burning Ground.	Guindy.
61	99	Little Mount Burial Ground ...	Little Mount.
62	99	Y.M.C.A. Burial Ground ...	Mount Road.
63	100	Muslim Burial Ground ...	32, Mosque Street.
64	100	Ikkattu Thangal Hindu Burial and Burning Ground	Ikkattu Thangal Vill, Saidapet.

CATTLE DEPOTS AND VETERINARY DISPENSARIES.

<i>S.No.</i>	<i>Divn. No.</i>	<i>Location.</i>
1	3	... 68, Gollavar Agraharam Road.
2	33, 34 & 35	... " G ", Cattle Depot, Perambur High Road.
3	68 & 69	... " D " Depot,, 25, Harris Road.
4	78	... " E " Depot, Muthiah Mudaly Street.
5	84	... Karaneswarar Pagoda Street.
6	93	... Junction of Kodambakkam Road and Thirumalai Pillai Road.
7	99	... Government Dispensary, Mount Road, Saidapet.

CHILD WELFARE CENTRES.

<i>Serial No.</i>	<i>Divn. No.</i>	<i>Name of Centre or Creche.</i>	<i>Location.</i>
1	1	Tondiarpet Child Welfare Centre.	385, Thiruvottiyur High Road
2	8	Palmyrah kuppam Child Welfare Centre.	Near Corporation Model Line Palmyrah kuppam.
3	3	Royapuram Child Welfare Centre.	26, Suryanarayana Chetty Street, Royapuram.
4	3	Royapuram Creche ...	26, Suryanarayana Chetty Street, Royapuram.
5	4	Sanjeevirayanpet Child Welfare Centre.	21/22, Kappalpolu Chetty Street.

<i>Serial No.</i>	<i>Divn. No.</i>	<i>Name of Centre or Creche.</i>	<i>Location.</i>
6	12	Broadway Creche ...	80/81, Broadway (Bunder Rama Naicken Garden).
7	13	Muthialpet Child Welfare Centre.	47, Linghi Chetty Street, G. T. Madras.
8	16	Kothwal Bazaar Child Welfare Centre.	1/27, Appu Maistry Koil Street, G.T., Madras.
9	23	Washermanpet Child Welfare Centre.	86, Thiruvottiyur High Road, Washermenpet.
10	25	Basin Bridge Child Welfare Centre.	53-B, Basin Bridge Road.
11	26	Peddunaickenpet Child Welfare Centre.	18, Zinda Sahib Street, Peddunaickenpet.
12	26	George Town Child Welfare Centre.	44, Amman Koil Street, G.T., Madras.
13	28	Trevelyan Basin Child Welfare Centre.	52, Trevelyan Basin Street, Sowcarpet.
14	29	Edapalayam Child Welfare Centre.	Mallaya Market, Wall Tax Road.
15	31	Vyasarpady Child Welfare Centre.	Bharathi Road, Perambur.
16	33	Pulianthope Child Welfare Centre.	1/33, Gantz Road, Pulianthope.
17	34	North Perambur Child Welfare Centre.	55, Perambur High Road.
18	39	Choolai Maternity Home ...	15, Vijayavigneswarar Koil Street, Choolai.
19	40	Hospital Maidan Centre ...	39, P. B. Road, Choolai.
20	41	Sembiam Child Welfare Centre.	45, Paper Mills Road, Sembiam.
21	45	Ayanavaram Maternity Home	United India Colony, Ayana-varam.
22	46	Nammalwarpet Child Welfare Centre.	13-A, Subbaraya Chetty Street, Nammalwarpet.
23	47	Kosapet Child Welfare Centre.	8, Chellappa Mudali Street, Kosapet.
24	49	Perumalpet Child Welfare Centre.	18, Kariappa Mudali Street, Perumalpet.
25	50	Purasawalkam Child Welfare Centre.	109, Purasawalkam High Road, Purasawalakam.
26	51	Kilpauk Child Welfare Centre.	19, Halls Road, Kilpauk.
27	53	Chetpet Child Welfare Centre.	27, Jaganathapuram 2nd Street, Chetpet.
28	53	Chetput Creche ...	Do.
29	55	Nungambakkam Child Welfare Centre.	15, Noor Veeraswamy Iyer Street, Nungambakkam.
30	56	Thousand Lights Child Welfare Centre.	26, Aziz Mulk 3rd Street Chetput.
31	58	Triplicane Child Welfare Centre. ...	8, Nyniappa Maistry Street Triplicane.

<i>Serial No.</i>	<i>Divn. No.</i>	<i>Name of Centre or Creche.</i>	<i>Location.</i>
32	64	Ashok Vihar Maternity Home.	Ashok Vihar, behind Moore Market, P.T., Madras.
33	64	Park Town Child Welfare Centre.	2/3, Periera Street, Park Town.,
34	66	Napier Park Child Welfare Centre.	1/61, Arunachala Naicken Street, Chintadripet.
35	68	Egmore Child Wlfare Centre.	37, Langs Garden Road, Egmore.
36	76	Zam Bazaar Child Welfare Centre.	24/25, Surappa Mudali Street, Zambazaar.
37	77	Mirsahibpet Child Welfare Centre.	65, Dr. Besant Road, Triplicane.
38	79	Royapettah Child Welfare Centre.	84, Lloyds Road, Royapettah.
39	81	Teynampet Child Welfare Centre.	104, Mount Road, Teynampet.
40	84	Mylapore Child Welfare Centre.	48, Bazaar Road, Mylapore.
41	89	Mandavalli Child Welfare Centre.	34, Brodies Road, Adyar.
42	90	Adyar Child Welfare Centre.	44, Vasantha Press Road Adyar.
43	92	Kodambakkam Child Welfare Centre.	68, Arcot Road, Kodambakkam.
44	93	T. Nagar (N.) Child Welfare Centre.	16, Raghaviah Road, T. Nagar.
45	94	T. Nagar (S.) Child Welfare Centre.	3, Sivagnamam Road, T. Nagar.
46	97	Saidapet Sub-Centre ...	24, Dhanapal Chetty Street Saidapet.
47	98	Saidapet Maternity Home ...	2, Jeenis Road, Saidapet.
48	99	Guindy Child Welfare Centre	6, Perumal Koil Street, Kot-tur Village, Guindy

Meteorological Data of Madras-Nungambakkam for the year 1961.

Months (1)	Temperature °C			Monthly Rain-fall (in mms.) (5)	Heaviest fall in 24 Hours (6)	Number of Rainy days (7)	Monthly mean Bar Pressure Mts. (8)	Monthly Mean Rel. Humidity % (9)	Mean Direction of wind in degrees from North (10)
	Monthly Mean Maximum (2)	Monthly Mean Minimum (3)	Dew- point Tempera- ture (at -80 Hrs.) (4)						
January 1961	28.4	21.4	21.3	70.4	43.1	2	1015.4	83	N 8 E
February 1961	30.0	21.4	21.4	13.2	13.2	1	1012.5	82	N 82 E
March 1961	31.9	23.2	23.2	0.0	0.0	0	1012.8	80	S 53 W
April 1961	34.0	25.7	24.3	0.0	0.0	0	1009.8	74	S 41 W
May 1961	36.2	26.9	23.2	22.2	20.2	1	1006.4	65	S 58 W
June 1961	35.6	26.0	22.2	99.2	52.5	5	1000.6	67	S 67 W
July 1961	33.5	24.8	22.7	215.9	60.7	12	1006.0	75	S 50 W
August 1961	33.2	24.3	23.6	256.8	46.7	16	100.11	81	S 46 W
September 1961	33.2	24.5	23.0	187.3	40.7	9	1008.5	76	S 60 W
October 1961	31.7	24.1	24.0	204.9	55.3	11	1010.3	83	S 76 W
November 1961	29.0	22.4	22.1	176.4	70.4	7	1014.1	80	N 21 E
December 1961	27.9	21.0	20.4	11.8	6.5	2	1014.5	79	N 32 E
At 08-30 Hrs.									

To convert degrees centigade into degrees Farenheit apply :
(°C × 9/5 × 32 = °F).

VITAL STATISTICS

Showing births, deaths and infantile deaths

Division No.	Name of the New Division.	Area in square Miles	Area in Acres	Population Accord- to the census 1961 (approximately)			Number of live Births Registered		
				Males.	Females.	Total.	Males.	Females.	Total.
1	New Washermenpet	2.1629	1,384.256	12,170	11,039	23,209	530	565	1,095
2	Tondiarpet	0.4529	289.856	9,402	8,709	18,111	484	439	923
3	Grace Garden	0.2520	161.280	8,519	7,944	16,463	483	454	937
4	Sanjeevirayanpet	0.1613	103.232	8,168	7,740	15,908	336	365	701
5	Mottai Garden	0.1113	71.232	6,785	6,423	13,208	317	298	615
6	Narayanappa Naicken Garden	0.0713	45.632	6,632	6,227	12,859	289	298	587
7	Singara Garden	0.1320	84.480	8,153	7,562	15,715	342	320	662
8	Royapuram	0.1321	199.744	9,952	9,490	19,442	430	396	826
9	Meenakshiammenpet	0.1984	126.976	8,714	8,439	17,153	1,351	1,260	2,611
10	Old Washermenpet	0.1810	115.840	7,446	6,877	14,323	342	346	688
11	Seven Wells (North)	0.0891	57.024	8,857	8,033	16,890	283	293	576
12	Ammen Koil (North)	0.0510	32.640	6,844	6,362	13,206	259	235	494
13	Muthialpet	0.0837	53.568	8,139	7,426	15,565	251	241	492
14	Harbour	0.5100	326.400	9,873	6,332	16,205	330	325	655
15	Mannady	0.0656	41.984	6,291	5,100	11,391	191	186	377
16	Ammen Koil (South)	0.0517	33.088	5,716	5,159	10,875	219	171	390
17	Seven Wells (South)	0.0767	49.088	8,284	7,801	16,085	349	352	701
18	Sowrcarpent	0.0818	52.352	7,020	4,923	11,943	164	135	299
19	Kothavalchavadi	0.1250	80.000	7,560	5,358	12,918	207	191	398
20	Katchaleesvarar	0.5490	351.360	9,735	6,848	16,583	209	229	438
21	Korukupet	0.4959	319.290	9,223	8,292	17,515	376	344	720
22	Kumaraswamy Nagar	0.1792	114.688	9,662	9,026	18,688	482	426	908
23	Dr. Vijayaraghavalu Nagar	0.4331	277.184	10,292	9,668	19,960	566	554	1,120
24	Basn Bridge	0.2410	154.240	6,882	6,176	13,058	276	294	570
25	Kondithope	0.1155	73.920	8,626	7,963	16,589	336	321	657
26	Peddu Naickenpet	0.0983	62.912	11,310	10,646	21,956	351	370	721
27	Perumal Koil Garden	0.0524	33.536	7,891	7,482	15,373	292	277	569
28	Trevelyan Basin	0.0696	44.544	5,238	4,714	9,952	221	201	422
29	Elephant Gate	0.0604	38.656	5,511	4,993	10,504	227	215	442
30	Edapalayam	0.0799	51.136	7,765	6,886	14,651	239	292	531
31	Perambur	0.8650	553.600	11,891	10,993	22,884	434	399	833
32	Vyasarpady	1.3200	844.800	11,657	10,791	22,448	469	384	853
33	Pulianthope	0.2880	184.320	12,247	11,454	23,701	571	570	1,141
34	Wadia Nagar	0.4025	257.600	7,924	7,238	15,162	312	327	639
35	Thiru-Vi-Ka Nagar	0.5025	321.600	9,813	8,908	18,721	320	332	652
36	Pattalam	0.0845	54.080	5,336	5,007	10,343	190	204	394
37	Thattan Kulam	0.0655	41.920	7,938	7,227	15,165	356	352	708
38	Dr. Besant Nagar	0.2965	189.760	9,383	8,711	18,094	492	452	944
39	Choolai	0.0915	58.560	7,818	7,171	14,989	372	363	735
40	Hospital Garden	0.1321	84.544	9,494	8,794	18,288	352	368	720
41	Sembiam	0.8290	530.560	10,521	9,916	20,437	493	408	901
42	Seru Vellore	0.3019	193.216	8,330	7,749	16,079	250	243	493
43	Agaram	2.6509	1,696.756	7,884	7,282	15,166	219	216	435
44	Nagamma Ammai Nagar	0.3109	198.976	10,194	9,554	19,748	404	394	798
45	Ayanavaram	0.5300	339.200	11,458	10,495	21,953	494	520	1,014
46	Nammalvarpet	0.6001	384.064	9,768	8,346	18,114	306	290	596
47	Otteri	0.1178	75.392	9,344	8,687	18,031	381	373	754
48	Kosapet	0.1237	79.168	9,035	8,407	17,442	351	359	710
49	Perumalpet	0.1272	81.408	6,989	6,467	13,456	215	214	429
50	Purusawalkam	0.1847	118.208	7,768	7,352	15,120	274	272	546
51	Shenoy Nagar	2.3891	1,529.024	11,223	10,205	21,428	414	403	817
52	Kilpauk	0.6186	395.904	10,068	8,223	18,291	502	464	966
53	Chetpet	0.4513	288.832	8,071	7,311	15,382	337	316	653
54	Nungambakkam	0.6754	432.256	10,682	8,149	18,831	305	267	572
55	Sevagram	0.4210	269.440	8,718	8,084	16,802	291	282	573
56	Thousand Lights (West)	0.7479	478.656	9,091	8,744	17,835	336	341	677
57	Thousand Lights (East)	0.2501	160.064	6,236	5,772	12,008	273	259	532
58	Pudupakkam	0.0842	53.888	7,514	7,082	14,596	338	338	676
59	Amir Mahal	0.2061	131.904	9,490	8,865	18,355	273	336	609
60	Royapettah	0.1631	104.384	8,306	7,769	16,075	297	303	600
61	Gangadeswarar Koil	0.1771	113.344	8,109	6,965	15,074	246	200	446
62	Dr. Ambedkar Nagar	0.3526	225.664	7,996	7,154	15,150	299	257	556
63	Periamet	0.3321	212.544	7,629	6,187	13,816	253	252	505
64	Park Town	0.4588	293.632	13,334	8,155	21,489	295	318	613
65	Adikesavapuram	0.1859	118.976	8,303	7,802	16,105	360	288	648

Registered in each Division during 1961.

Number of Births of Males to every 100 Female deaths	Number of deaths Registered excluding Still Births			Number of deaths of Males to every 100 Females deaths.	Number of Infant Deaths Registered			Rate per 1,000 live Births Registered	Number of Still-birth Registered.
	Males	Females	Total		Males	Females	Total		
93.8	257	303	560	84.4	73	86	159	145.20	24
110.2	187	217	404	86.1	45	68	113	122.42	22
106.3	130	163	293	79.7	55	51	106	113.12	26
92.0	132	111	243	118.9	40	35	75	106.99	15
106.3	172	166	338	103.62	46	50	96	156.09	16
96.9	146	130	276	112.3	40	35	75	127.76	15
106.8	165	148	313	111.4	57	52	109	164.65	19
108.5	150	147	297	102.0	37	27	64	77.48	14
107.2	262	300	562	87.3	115	106	221	84.64	152
98.8	184	180	364	102.2	54	53	107	155.52	19
96.5	391	253	644	154.5	51	42	93	161.45	19
110.1	118	127	245	92.9	38	31	69	139.67	12
104.1	115	109	224	105.5	27	20	47	95.52	13
101.5	190	138	328	137.6	49	39	88	134.35	16
102.6	66	79	145	83.5	15	17	32	84.88	7
128.0	106	109	215	97.2	22	21	43	110.25	10
99.1	148	148	296	100.0	44	37	81	115.54	22
121.4	59	65	124	90.7	13	13	26	86.95	9
108.3	116	82	198	141.4	22	20	42	105.52	16
91.2	106	92	198	115.2	23	24	47	107.30	21
109.3	202	232	434	87.0	56	60	116	161.11	30
110.8	263	257	520	102.3	83	75	158	174.00	24
102.1	371	398	769	93.2	102	131	233	208.03	32
93.8	178	173	351	102.8	45	40	85	149.12	22
104.6	134	156	290	85.9	45	32	77	117.19	20
94.8	221	213	434	103.8	57	57	114	159.08	17
105.4	124	126	250	98.4	31	23	54	94.90	3
109.9	83	93	176	89.2	14	15	29	68.22	—
105.5	82	77	159	106.5	16	18	34	76.92	3
81.8	107	84	191	127.3	38	24	62	111.11	4
108.7	182	150	332	121.3	46	36	82	98.43	32
122.1	222	211	433	105.2	61	55	116	135.99	29
101.1	317	310	627	122.5	94	77	171	149.86	30
95.2	140	161	301	86.9	32	46	78	122.06	16
96.3	205	176	381	116.4	55	28	83	127.30	13
93.1	98	76	174	128.9	28	18	46	117.00	11
101.1	158	159	317	99.3	44	40	84	118.64	12
108.8	253	284	537	89.0	70	57	127	134.53	31
102.4	116	105	221	110.4	38	30	68	92.51	15
92.9	131	128	259	102.3	35	31	66	91.66	15
120.8	181	170	351	106.4	46	47	93	103.21	6
102.8	131	133	264	98.5	28	31	59	119.67	5
101.3	65	76	141	85.5	18	16	34	78.16	1
102.5	191	153	344	124.8	32	35	67	83.96	18
95.0	222	190	412	116.8	61	47	108	106.50	30
105.5	226	191	417	118.3	61	53	114	191.27	21
102.1	214	211	425	101.4	55	56	111	145.88	22
97.4	151	182	333	82.9	47	64	111	154.78	19
100.4	82	91	173	90.1	41	19	60	139.86	13
100.7	127	127	254	100.0	32	31	63	115.38	15
102.7	151	141	292	107.0	49	36	85	104.03	11
108.1	192	132	324	145.4	33	23	56	57.66	27
106.6	142	133	275	106.7	42	38	80	122.51	14
114.2	129	118	247	109.3	25	27	52	90.90	23
103.1	152	134	286	113.4	41	29	70	122.16	19
98.5	138	120	258	115.0	29	27	56	82.71	12
105.4	84	110	194	76.3	25	26	51	95.86	13
100.0	148	134	282	110.4	39	40	79	116.86	19
81.2	181	183	364	98.9	37	42	79	129.72	19
94.	113	100	213	113.0	41	24	65	108.33	9
123.0	89	87	176	102.2	25	15	40	89.68	15
116.3	154	132	286	116.6	33	21	54	97.12	11
100.3	114	116	230	98.2	30	30	60	118.81	13
92.7	667	374	1,041	178.3	34	48	82	133.76	9
125.0	124	133	257	93.2	23	28	51	78.70	17

VITAL STATISTICS

Showing Births deaths and infantile deaths

Division No.	Name of the New Division.	Area in square Miles	Areas in Acres	Population According to the census 1961 (approximately)			Number of live Births Registered		
				Males.	Females.	Total.	Males.	Females.	Total.
66	Chintadripet	0.1524	97.536	7,504	7,043	14,574	298	281	579
67	Egmore	0.5670	362.880	9,022	8,370	17,392	1,376	1,347	2,723
68	Pudupet	0.3751	240.064	8,662	7,997	16,659	355	332	687
69	Komaleeswaranpet	0.1797	115.008	7,231	6,417	13,648	294	301	595
70	Narasingapuram	0.1050	67.200	7,311	6,574	13,885	232	258	490
71	Nehru Nagar	0.6332	405.248	8,885	7,708	16,593	425	384	809
72	Thiruvattesvaranpet	0.1685	107.840	9,421	8,491	17,912	325	338	663
73	Chepauk	0.2535	162.240	8,093	7,782	15,875	517	429	946
74	Marina	0.1390	88.960	7,811	7,042	14,853	382	324	706
75	Triplicane	0.1573	100.672	9,798	8,535	18,333	269	248	517
76	Jam Bazaar	0.1286	82.304	10,375	8,809	19,184	381	368	749
77	Mirsahibpet	0.1253	80.192	9,378	8,677	18,055	372	351	723
78	Azad Nagar	0.2827	180.928	9,588	8,482	18,070	289	339	728
79	Durgapuram	0.3048	195.072	8,214	7,582	15,796	288	278	566
80	Krishnampet	0.1418	90.752	6,255	6,104	12,359	310	296	606
81	Teynampet	0.5236	335.104	8,731	7,961	16,692	325	317	642
82	Vivekanandapuram	0.3838	245.632	8,216	7,220	15,436	317	289	606
83	Madava Perumalpuram	0.1038	66.432	6,661	6,333	12,994	249	249	498
84	Karniswarapuram	0.2609	166.976	8,801	8,005	16,806	380	387	767
85	Santhome	0.2104	134.656	8,758	9,512	18,270	269	253	522
86	Mylapore	0.2195	140.480	7,904	7,203	15,107	299	272	571
87	Bheemannapet	0.7666	490.624	9,545	8,914	18,459	316	301	617
88	Alwarpet	0.6906	441.984	8,956	8,277	17,233	314	349	663
89	Raja Annamalaipuram	1.9966	1,277.824	2,338	11,814	24,152	540	539	1,079
90	Adayar	1.9616	1,255.424	7,223	6,815	14,038	285	290	575
91	Aminjikarai	1.9516	1,249.024	16,438	15,208	31,646	608	581	1,189
92	Vadapalani	1.0866	695.424	15,982	14,338	30,320	731	712	1,443
93	Theagarayanagar	0.6245	399.680	11,822	10,673	22,495	353	361	714
94	Sathyamoorthi Nagar	0.7735	495.040	11,749	11,235	22,984	436	405	841
95	Rajaji Nagar	0.4685	299.840	11,452	10,364	21,816	357	350	707
96	Kamraj Nagar	1.2526	801.664	14,318	13,264	27,582	446	426	872
97	Saidapet (North)	0.6026	385.664	8,645	8,040	16,685	327	308	635
98	Periapet	0.4215	269.760	9,803	8,973	18,776	443	403	846
99	Gunidy	5.3240	3,407.360	13,556	10,762	24,318	387	329	716
100	Saidapet (South)	1.5186	971.904	10,865	9,660	20,525	406	378	784
Total ...		49.7400	31,823.594	9,05,533	8,17,198	17,22,731	36,807	35,430	72,237

Average Number of births of **Males** to every 100 females births ... 103.8
 Average Number of deaths of **Males** to every 100 females deaths ... 103.8
 Average Rate per 1,000 live births Registered ... 115.79

Registered each in Division during 1961

Number of Births Males to every 100 Female deaths	Number of deaths Registered excluding Still Births			Number of deaths of Males to every 100 Female deaths.	Number of Infant Deaths Registered			Rate per 1,000 live Births Registered	Number of Still-births Registered
	Males	Females	Total		Males	Females	Total		
106.0	121	109	230	111.0	42	27	69	119.17	12
103.6	235	245	480	95.9	137	76	213	78.21	221
106.9	116	108	224	107.4	25	28	53	77.14	20
97.6	106	108	214	98.1	28	21	49	82.35	14
89.9	98	91	199	107.6	48	30	78	159.18	5
110.6	188	182	370	103.2	57	55	112	138.44	26
96.1	186	148	334	125.6	52	35	87	131.37	24
120.5	112	120	232	93.3	39	49	88	93.02	55
111.7	164	176	340	93.1	47	50	97	137.39	23
108.4	95	94	189	101.0	22	15	37	71.56	18
103s5	184	189	373	97.3	53	38	91	121.49	23
105s9	210	205	415	102.4	61	42	103	142.46	14
114s7	229	190	419	120.8	44	43	87	19.50	19
100s3	168	171	339	98.2	42	32	74	130.74	24
104s7	190	199	389	95.4	46	48	94	155.11	17
102.5	140	136	276	102.9	39	39	78	121.49	15
109.6	115	121	236	95.0	30	26	56	92.40	19
100.0	106	111	217	95.5	31	19	50	100.40	16
98.1	161	210	371	76.6	39	62	101	131.68	19
106.3	113	115	228	98.2	23	31	54	103.44	18
109.9	139	111	250	125.2	30	26	56	98.07	9
104.9	131	142	273	92.2	42	33	75	121.55	16
89.9	147	166	313	88.5	33	45	78	117.49	30
100.1	221	211	432	104.7	59	72	131	121.40	26
98.2	107	101	208	105.9	28	25	53	92.16	13
104.6	241	275	516	90.1	56	72	128	107.65	46
102.6	224	259	483	86.5	62	76	138	95.63	34
97.7	146	162	308	90.1	35	23	58	81.23	10
107.6	198	209	407	94.7	63	53	116	137.93	20
102.0	153	145	298	113.4	45	38	83	117.39	6
104.7	193	198	391	97.4	52	53	105	120.41	20
106.1	160	130	290	123.0	38	26	64	100.78	22
109.9	150	173	323	86.7	39	44	83	98.10	36
117.6	183	169	352	108.2	41	35	76	106.14	18
107.4	168	145	313	115.8	36	28	64	81.12	13
	16,553	15,941	32,494		4,347	4,018	8,365		2,128

Birth Registered in each Division during each Month in 1961.

D. Division No.	Name of the New Division.	January	February	March	April	May	June	July	August	September	October	November	December	Total
1	New Washermenpet ...	78	65	81	87	92	88	72	110	79	96	103	144	1,095
2	Tondiarpet ...	56	72	84	83	69	68	58	78	86	79	67	123	923
3	Grace Garden ...	63	58	88	67	74	78	76	68	67	103	87	108	937
4	Sanjeevirayanpet ...	42	49	65	51	70	43	44	66	46	54	54	97	701
5	Mottai Garden ...	42	61	53	40	43	53	31	51	45	56	54	86	615
6	Narayanappa Naicken Garden.	48	51	53	40	45	48	32	63	37	58	44	68	587
7	Singara Garden ...	43	53	68	64	50	60	32	58	39	58	54	83	662
8	Royapuram ...	61	49	90	56	49	76	55	74	60	78	74	104	826
9	Meenakshiammenpet.	127	196	217	219	115	217	167	240	278	224	236	375	2,611
10	Old Washermenpet ...	36	40	85	34	66	53	39	63	51	60	69	92	688
11	Seven Wells (North) ...	22	46	34	44	45	65	26	55	43	45	72	79	576
12	Ammen Koil (North) ...	22	43	44	49	26	46	34	33	40	44	42	71	494
13	Muthialpet ...	36	27	41	41	38	35	31	49	35	41	60	58	492
14	Harbour ...	49	34	64	54	43	52	46	50	63	61	72	67	655
15	Mannady ...	21	40	19	21	24	30	39	27	33	38	34	51	377
16	Ammen Koil (South)	26	26	25	35	20	39	23	32	34	25	57	48	390
17	Seven Wells (South) ...	39	53	50	61	70	54	44	53	58	52	66	101	701
18	Sowcarpet ...	13	17	20	35	23	25	19	25	23	14	31	54	299
19	Kothavalchavadi ...	33	34	23	38	28	33	42	40	28	37	30	32	398
20	Katchaleeswarar ...	27	42	33	50	43	35	26	24	38	35	32	53	438
21	Korukupet ...	47	48	72	58	65	62	58	50	55	59	51	95	720
22	Kumarasami Nagar ...	58	62	61	63	72	77	77	73	74	85	87	119	908
23	Dr. Vijayaragavalu Nagar	68	64	120	89	111	80	65	93	81	85	121	143	1,120

24	Basin Bridge	...	19	40	47	47	53	30	53	51	45	59	86	570
25	Kondithope	...	39	44	60	55	71	42	66	62	31	68	79	657
26	Peddu Naickenpet	...	21	53	59	72	63	40	55	91	46	70	105	721
27	Perumal Koil Garden	...	29	47	33	50	61	48	47	55	30	49	69	569
28	Trevelyan Basin	...	22	37	27	22	48	30	28	30	54	44	48	422
29	Elephant Gate	...	26	31	21	51	22	17	35	27	17	64	92	442
30	Edapalayam	...	25	30	36	49	37	54	53	42	30	86	64	531
31	Perambur	...	57	52	68	49	77	71	66	59	50	96	129	833
32	Vyasarpany	...	44	67	85	50	73	70	84	54	77	64	125	853
33	Puliyanthope	...	58	104	107	113	77	86	97	79	109	85	140	1,141
34	Wadia Nagar	...	26	59	48	49	49	54	49	48	74	52	87	639
35	Thiru-Vi-Ka Nagar	...	26	61	47	56	43	66	61	44	55	47	88	652
36	Pattalam	...	39	39	29	37	25	25	21	63	40	38	12	394
37	Thattam Kulam	...	49	62	38	67	62	67	54	46	82	54	78	708
38	Dr. Besant Nagar	...	37	104	83	108	76	88	88	59	81	64	107	944
39	Choolai	...	48	60	43	67	83	66	50	45	70	74	91	735
40	Hospital Garden	...	32	53	39	65	68	63	68	47	71	60	121	720
41	Sembiam	...	30	90	54	74	45	85	89	82	68	74	118	901
42	Seru Vellore	...	18	43	38	39	47	57	33	37	38	39	55	493
43	Agaram	...	9	44	21	35	32	39	32	18	37	37	106	435
44	Nagamma Ammai Nagar	...	37	59	53	54	83	72	80	54	67	83	77	798
45	Ayanavaram	...	52	82	75	72	69	77	52	102	77	132	137	1,014
46	Nammalvarpet	...	36	45	40	47	51	63	39	48	55	53	68	596
47	Otteri	...	49	45	48	63	73	66	53	61	47	86	92	754
48	Kosapet	...	37	57	61	70	63	72	66	43	43	92	60	710
49	Perumalpet	...	28	23	32	25	33	38	34	34	33	57	56	429
50	Purasawalkam	...	39	47	41	26	43	54	57	35	55	50	56	546

Birth Registered in each Division during each Month in 1961.

Division No.	Name of the New Division.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
51	Shenoy Nagar	37	67	43	65	66	38	99	61	66	48	80	147	817
52	Kilpauk	29	50	43	78	89	69	112	61	58	63	88	226	966
53	Chetpet	44	55	38	47	58	58	65	45	30	63	46	104	653
54	Nungambakkam	27	37	31	57	37	53	52	52	36	57	52	81	372
55	Sevagram	37	33	34	37	49	52	45	45	46	61	60	74	573
56	Thousand Lights (West)	37	44	53	47	68	59	48	55	57	47	65	97	677
57	Thousand Lights. (East.)	15	38	29	68	61	49	38	38	35	35	49	77	532
58	Pudupakkam	18	63	57	49	64	66	65	51	55	61	48	79	676
59	Amir Mahal	30	54	44	48	48	61	50	50	53	53	49	69	609
60	Royapettah	22	38	62	53	37	70	43	37	58	56	50	74	600
61	Gangadeswarar Koil...	26	26	30	46	27	43	34	44	44	24	40	62	446
62	Dr. Ambedkar Nagar.	28	28	56	40	52	46	61	35	46	54	44	66	556
63	Periamet	32	37	33	45	45	47	36	39	31	49	59	52	505
64	Park Town	31	42	42	42	45	37	50	49	33	23	135	84	613
65	Adikesavapuram	40	47	46	59	49	55	54	48	38	47	84	81	648
66	Chintadripet	35	47	49	57	48	57	52	52	34	38	50	60	579
67	Egmore	48	228	174	220	172	207	232	203	167	233	279	510	2,723
68	Pudupet	34	62	63	63	48	73	55	47	43	50	58	91	687
69	Komaleeswaranpet	28	46	38	38	51	58	52	39	55	59	43	88	595
70	Narasingapuram	20	29	32	46	48	36	34	40	40	48	61	56	490
71	Nehru Nagar	31	77	46	52	71	74	69	73	43	64	88	121	809
72	Thiruvatteeswaranpet.	36	52	59	56	62	65	53	45	33	40	63	99	663
73	Cheranpet	52	62	58	82	45	103	85	78	62	50	133	136	946

74 Marina	...	50	48	54	68	65	66	61	48	45	74	37	90	706
75 Triplicane	...	36	35	31	40	43	35	31	41	36	57	57	75	517
76 Jam Bazaar	...	38	49	46	78	63	57	57	53	46	96	64	102	749
77 Mirsahibpet	...	43	62	57	74	53	52	60	58	39	68	56	101	723
78 Azad Nagar	...	34	64	68	53	42	72	58	51	49	48	89	100	728
79 Durgapuram	...	27	41	49	45	39	52	43	46	28	65	44	87	566
80 Krishnampet	...	53	40	48	52	28	64	66	45	21	20	71	98	606
81 Teynampet	...	43	38	47	57	45	70	49	50	41	60	69	73	642
82 Vivekanandapuram	...	27	50	45	48	44	53	48	37	71	54	51	78	606
83 Madava Perumal-puram	...	26	31	48	46	46	34	35	44	39	47	36	66	498
84 Karniswarapuram	...	54	62	54	79	67	68	61	40	61	78	51	92	767
85 Santhome	...	29	27	42	42	31	45	40	37	51	59	58	61	522
86 Mylapore	...	35	37	49	55	37	54	37	33	42	60	62	70	571
87 Bheemannahpet	...	34	36	31	61	48	50	60	35	60	42	71	89	617
88 Alwarpet	...	33	51	58	66	59	50	53	50	50	50	68	75	663
89 Raja Annamalaipuram	...	41	68	70	85	100	99	83	100	64	83	125	161	1,079
90 Adayar	...	29	28	51	49	45	70	61	36	41	49	50	66	575
91 Aminjikarai	...	52	73	74	103	86	108	125	102	63	81	120	202	1,189
92 Vadapalani	...	73	100	113	85	163	130	115	114	107	160	130	153	1,443
93 Theagarayanagar	...	37	60	51	70	55	60	68	62	48	56	71	76	714
94 Sathyamoorthi Nagar	...	19	96	47	86	52	81	61	67	57	111	75	88	841
95 Rajaji Nagar	...	23	57	23	95	36	72	39	58	67	74	64	99	707
96 Kamraj Nagar	...	27	54	57	65	70	60	85	88	84	52	111	119	877
97 Saidapet (North)	...	6	60	57	39	58	67	75	59	51	34	66	63	635
98 Periapet	...	17	77	66	33	44	97	100	88	65	40	93	96	846
99 Guindy	...	30	38	42	53	65	68	60	81	64	49	48	118	716
100 Saidapet (South)	...	11	77	32	32	44	71	105	82	58	50	124	98	784
Total ...		3,653	5,429	5,393	5,975	5,463	6,255	5,896	5,878	5,420	6,029	7,059	9,787	72,237

Births Registered among Principle Communities in each Division during, 1961.

Division No.	Name of the New Division.	Aliens.		Anglo-Indians.		Indian Christians.		Hindus.		Muslims.		Others		Total		Grand total.
1	New Washermenpet ...	...	...	1	...	21	22	474	499	34	44	...	...	530	565	1,095
2	Tondiarpet ...	...	...	1	3	60	54	417	374	6	8	...	...	484	439	923
3	Grace Garden ...	...	...	2	...	51	63	376	348	45	54	...	1	483	454	937
4	Sanjeevirayanpet ...	...	...	1	1	7	8	325	353	3	3	...	...	336	365	701
5	Mottai Garden ...	...	...	...	...	1	2	287	268	29	28	...	...	317	298	615
6	Narayanappa Naicken Garden. ...	...	...	...	...	5	...	282	292	2	5	...	...	289	298	587
7	Singara Garden ...	...	...	...	...	7	2	332	314	3	4	...	...	342	320	662
8	Royapuram ...	...	...	10	7	57	51	341	325	21	9	1	4	430	396	826
9	Meenakshiammenpet. ...	...	...	...	1	39	36	1,233	1,129	79	94	...	...	1,351	1,260	2,611
10	Old Washermenpet ...	...	...	1	...	27	19	294	306	20	21	...	...	342	346	688
11	Seven Wells (North) ...	...	...	...	1	10	10	264	273	9	9	...	...	283	293	576
12	Ammen Koil (North) ...	...	...	2	1	22	16	206	195	29	23	...	...	259	235	494
13	Muthialpet ...	...	...	...	...	4	1	227	226	20	14	...	...	25	241	492
14	Harbour ...	...	...	...	...	5	3	194	200	131	122	...	...	330	325	655
15	Mannady ...	...	...	...	...	11	8	176	170	4	8	...	...	191	186	377
16	Ammen Koil (South) ...	...	...	3	...	28	20	150	124	38	27	...	...	219	171	390
17	Seven Wells (South) ...	...	...	...	2	11	12	292	293	46	45	...	...	349	352	701
18	Sowcarpet ...	...	...	...	...	...	...	163	135	...	...	...	...	164	135	299
19	Kothavalchavadi ...	...	1	...	...	4	...	158	146	45	45	...	...	207	191	398
20	Katchaleeswarar ...	...	...	...	1	8	5	181	199	21	23	...	...	209	229	438
21	Korukupet ...	...	...	...	...	7	4	368	337	1	3	...	...	376	344	720
22	Kumarasamy Nagar...	...	...	...	...	3	3	462	401	17	22	...	...	482	426	908

23	Dr. Vijayaragavalu Nagar	...	...	...	...	7	4	370	54	189	196	...	...	566	554	11,20
24	Basin Bridge	...	...	...	...	20	27	197	233	59	32	...	...	276	294	570
25	Kondithope	...	...	...	...	3	4	328	313	5	4	...	...	336	321	657
26	Peddu Naickenpet	...	...	...	...	2	...	348	369	1	1	...	...	351	370	721
27	Perumal Koil Garden.	...	...	...	...	...	...	292	277	...	...	...	...	292	277	569
28	Trevelyan Basin	...	...	...	...	...	...	221	201	...	...	...	...	221	201	422
29	Elephant Gate	...	...	...	...	...	...	227	215	...	...	...	...	227	215	442
30	Edapalayam	...	...	...	...	1	1	234	285	...	2	4	4	239	292	531
31	Perambur	...	...	...	...	11	11	414	384	8	5	...	...	434	399	833
32	Vyasarpady	...	...	...	...	27	27	439	349	3	8	...	...	469	384	853
33	Puliyanthope	...	...	...	...	14	18	442	436	115	116	...	...	571	570	1,141
34	Wadia Nagar	...	...	...	...	12	10	222	217	79	99	...	...	312	327	639
35	Thiru-Vi-Ka Nagar	...	...	...	...	30	32	280	291	9	8	...	...	320	332	652
36	Pattalam	...	...	...	...	11	18	174	179	5	7	...	...	190	204	394
37	Thattam Kulam	...	...	...	...	4	8	341	338	11	6	...	...	356	352	708
38	Dr. Besant Nagar	...	...	...	...	23	22	360	328	108	102	...	...	492	452	944
39	Choolai	...	...	...	...	5	4	365	357	2	2	...	...	372	363	735
40	Hospital Garden	...	...	...	...	8	12	338	353	2	3	...	...	352	368	720
41	Sembiam	...	...	...	...	25	36	431	344	32	20	...	...	493	408	901
42	Seru Vellore	...	...	...	...	22	19	203	198	23	22	...	...	250	243	493
43	Agaram	...	...	...	...	23	20	187	182	3	11	...	...	219	216	435
44	Nagamma Aammai Nagar	...	...	...	...	14	19	364	355	20	18	...	...	404	394	798
45	Ayanavaram	...	...	...	...	16	20	452	479	22	17	...	...	494	520	1,014
46	Nammalvarpet	...	...	...	...	22	18	280	268	4	4	...	...	306	290	596
47	Otteri	...	...	...	...	21	16	353	350	5	7	...	...	381	373	754
48	Kosapet	...	...	...	...	4	7	343	347	2	5	...	...	351	359	710
49	Perumalpet	...	...	...	...	23	24	185	188	5	1	...	...	215	214	429
50	Purasawalkam	...	...	...	...	24	33	241	230	8	7	...	...	274	272	546

VITAL STATISTICS

STATISTICS SUPPLEMENT No. 4—contd
Births Registered among Principal Communities in each Division during 1961.

Division No.	Name of the New Division.	Aliens.		Anglo-Indian		Indian Christian		Hindus		Muslims		Others		Total		Grand total.
		Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	
51	Shenoy Nagar	...	...	...	18	380	365	20	20	...	...	...	...	414	403	817
52	Kilpauk	...	1	...	43	432	410	14	11	...	...	...	...	502	464	966
53	Chetpet	1	...	...	41	300	263	13	11	...	...	...	...	337	316	653
54	Nungambakkam	2	2	...	19	274	238	7	8	...	...	...	...	305	267	372
55	Sevagram	...	...	...	13	280	264	1	5	...	...	...	...	291	282	573
56	Thousand Lights (West)	...	...	1	42	270	261	24	35	...	...	...	...	336	341	677
57	Thousand Lights (East)	...	...	...	24	213	212	32	23	...	...	...	...	273	259	532
58	Pudupakkam	...	...	...	7	273	278	56	53	...	...	...	...	338	338	676
59	Amir Mahal	...	1	...	24	179	208	78	103	...	...	...	...	273	336	609
60	Royapettah	...	2	...	9	282	279	4	13	...	...	...	...	297	303	600
61	Gangadeswarar Koil...	1	...	...	9	228	181	11	10	...	...	...	...	246	200	446
62	Dr. Ambedkar Nagar.	...	4	...	42	212	177	41	34	...	...	...	...	299	257	556
63	Periamet	...	5	...	24	219	212	18	11	...	1	...	...	253	252	505
64	Park Town	...	...	1	17	268	285	15	13	...	1	...	...	295	318	613
65	Adikesavapuram	...	1	...	20	314	262	11	4	...	...	...	...	360	288	648
66	Chintadripet	1	1	...	5	275	260	18	16	...	...	...	...	298	281	579
67	Egmore	...	...	...	73	1,266	1,234	35	39	2	...	...	...	1,376	1,347	2,723
68	Pudupet	...	3	...	4	239	226	62	61	...	...	...	...	355	332	687
69	Komaleeswaranpet	...	...	1	9	259	274	21	18	...	...	...	...	294	301	595
70	Narasingapuram	...	1	...	9	207	225	18	23	...	...	...	...	232	258	490
71	Nehru Nagar	...	...	...	5	268	230	148	149	...	...	...	...	425	384	809
72	Thiruvatteswaranpet	...	...	...	1	201	208	119	129	...	...	...	...	325	338	663

Deaths Registered in each Division During each month in 1961.

Division No.	Name of the New Division.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total Deaths Registered excluding Still-Births.
1	New Washermenpet ...	39	61	66	37	37	34	58	42	47	39	37	63	560
2	Tondiarpet ...	45	48	22	20	31	26	45	26	36	34	35	36	404
3	Grace Garden ...	26	28	23	13	26	30	19	24	21	28	27	28	293
4	Sanjeevirayanpet ...	23	28	18	19	19	12	21	13	18	26	19	27	243
5	Mottai Garden ...	34	23	24	34	38	17	35	27	20	22	21	43	338
6	Narayanappa Naicken Garden. ...	24	20	21	35	27	24	25	26	27	12	17	18	276
7	Singara Garden ...	32	31	27	35	25	17	25	31	21	22	21	26	313
8	Royapuram ...	17	28	30	26	27	20	24	28	28	21	22	26	297
9	Meenakshiammenpet. ...	42	50	48	53	43	36	57	43	58	37	41	54	562
10	Old Washermenpet ...	33	31	30	33	30	21	54	28	28	26	21	29	364
11	Seven Wells (North)...	22	79	58	80	77	47	48	41	61	28	19	84	644
12	Ammen Koil (North)...	25	23	35	23	24	15	23	11	20	16	10	20	245
13	Muthialpet ...	21	19	38	27	12	19	16	16	7	15	14	20	224
14	Harbour ...	22	26	39	21	30	24	33	27	23	26	26	31	328
15	Mannady ...	15	19	24	12	11	10	6	11	9	13	9	6	145
16	Ammen Koil (South)	15	13	33	27	18	21	14	14	14	8	17	21	215
17	Seven Wells (South) ...	25	27	38	25	26	20	17	20	28	19	10	41	296
18	Sowcarpet ...	7	14	12	13	11	8	5	7	6	16	10	15	124
19	Kothavalchavadi ...	11	13	24	25	13	14	16	12	12	14	14	30	198
20	Katchaleeswarar ...	18	22	21	24	26	7	11	10	9	13	18	19	198
21	Korukupet ...	35	31	42	38	34	33	29	35	42	31	37	47	434
22	Kumarasamy Nagar...	33	36	48	37	54	50	70	36	42	46	37	31	520

23	Dr. Vijayaragavalu	45	66	64	89	71	75	63	67	60	52	63	54	769
24	Nagar	...	26	32	27	42	22	30	29	34	13	19	49	351
25	Basin Bridge	...	30	24	28	27	20	17	30	21	15	19	33	290
26	Kondithope	29	43	57	50	36	32	39	32	33	22	21	40	434
27	Peddu Naickenpet	...	20	18	24	31	21	29	21	13	18	11	20	250
28	Perumal Koil Garden.	24	16	11	13	11	9	10	24	7	18	11	26	176
29	Trevelyan Basin	...	17	17	11	15	11	12	8	6	16	12	14	159
30	Elephant Gate	...	14	14	14	25	17	13	14	17	10	16	26	191
31	Edapalayam	...	...	...	...	...	...	...	...	...	...	...	...	...
32	Perambur	...	37	22	30	27	20	17	26	35	26	28	43	332
33	Vyasarpany	...	46	33	37	26	26	41	42	33	31	54	27	433
34	Puliyanthope	...	56	30	35	58	32	66	44	55	47	52	64	627
35	Wadia Nagar	...	20	22	27	17	26	30	31	22	24	24	32	301
36	Thiru-Vi-Ka Nagar	...	44	40	29	33	22	26	31	14	37	37	31	381
37	Pattalam	...	16	14	16	16	20	11	11	8	11	17	22	174
38	Thattam Kulam	...	18	25	41	26	28	26	18	27	24	22	31	317
39	Dr. Besant Nagar	...	55	42	40	45	37	40	50	42	36	43	54	537
40	Choolai	...	12	18	20	17	10	19	14	16	18	21	35	221
41	Hospital Garden	...	25	22	22	20	20	19	22	18	16	21	29	259
42	Sembiam	...	27	20	28	31	25	38	29	25	28	31	36	351
43	Seru Vellore	...	26	20	19	21	20	19	28	24	24	22	24	264
44	Agaram	...	10	15	9	15	14	6	15	6	10	10	21	141
45	Nagamma	Aammai	24	22	23	18	25	38	32	36	35	22	39	344
46	Nagar	...	33	30	42	41	18	34	31	38	31	35	49	412
47	Ayanavaram	...	...	...	...	...	...	...	...	...	...	...	...	...
48	Nammalvarpet	...	38	33	42	33	23	39	36	37	26	28	49	417
49	Otteri	...	42	30	34	41	23	31	31	33	40	39	43	425
50	Kosapet	...	26	33	33	21	27	16	22	37	31	33	23	333
51	Perumalpet	...	14	14	8	11	15	16	12	18	13	22	13	173
52	Purasawalkam	...	21	30	28	11	22	20	17	22	24	17	18	254

VITAL STATISTICS

STATISTICS SUPPLEMENT No. 5—contd.

Deaths Registered in each Division during each month in 1961.

Division No.	Name of New Division.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total Deaths Registered excluding Still-Births.
51	Shenoy Nagar	26	28	17	25	32	13	19	29	33	23	22	25	292
52	Kilpauk	18	24	20	36	17	34	29	16	30	15	31	54	324
53	Chetpet	39	24	37	13	18	15	24	19	23	21	16	26	275
54	Nungambakkam	15	25	15	18	32	17	18	15	21	16	24	31	247
55	Sevagram	21	27	27	16	19	27	28	15	21	17	30	38	286
56	Thousand Lights (West)	...	...	...	...	...	...	...	...	...	...	...	...	...
57	Thousand Lights (East)	19	21	15	16	17	18	25	17	25	20	21	44	258
58	Pudupakkam	12	18	18	18	15	10	15	14	13	18	11	32	194
59	Amir Mahal	10	22	21	21	23	21	20	45	33	19	19	28	282
60	Royapettah	19	35	22	36	41	28	35	25	29	25	27	42	364
61	Gangeswarar Koil...	9	21	19	24	24	12	9	18	12	14	27	24	213
62	Dr. Ambadkar Nagar	17	14	17	15	5	12	18	15	13	14	13	23	176
63	Periamet	22	33	25	31	25	17	22	19	24	21	18	29	286
64	Park Town	20	20	16	20	21	16	6	13	21	24	20	33	230
65	Adikesavapuram	34	99	74	84	113	109	40	53	79	84	107	165	1,041
66	Chintadripet	27	23	18	18	15	18	17	22	29	24	20	26	257
67	Egmore	13	19	28	16	20	19	14	16	23	20	14	28	230
68	Pudupet	18	15	55	21	36	41	43	49	49	50	47	56	580
69	Komaleeswaranpet	21	20	25	17	20	14	20	26	11	18	17	15	224
70	Narasingapuram	18	15	25	16	21	11	17	17	22	15	19	18	214
71	Nehru Nagar	21	17	18	14	11	11	16	18	16	18	15	24	199
72	Thiruvotteswaranpet.	25	24	26	31	35	25	41	46	30	28	26	33	370
		26	34	38	28	29	20	33	29	32	20	18	27	324

73	Chepauk	...	14	19	22	18	15	13	15	27	26	22	19	22	232
74	Marina	...	29	24	37	28	30	30	19	30	27	19	27	40	340
75	Triplicane	...	17	19	13	15	10	15	8	11	7	10	15	49	189
76	Jam Bazaar	...	31	37	27	30	22	34	40	36	20	25	30	41	373
77	Mirsaibipet	...	40	24	34	34	37	41	33	47	25	25	28	47	415
78	Azad Nagar	...	27	62	37	44	43	35	29	28	25	26	26	37	419
79	Durgapuram	...	22	24	25	30	29	26	28	24	28	30	32	41	339
80	Krishnampet	...	36	37	33	27	33	45	23	29	31	28	26	41	389
81	Teynampet	...	18	29	30	29	27	23	19	18	17	18	24	24	276
82	Vivekanandapuram	...	18	35	18	22	19	16	22	27	11	19	10	19	236
83	Madava Perumal-puram	...	11	22	22	18	13	24	15	16	22	20	17	17	217
84	Karniswarapuram	...	29	35	31	26	30	29	29	22	38	27	44	31	371
85	Santhome	...	14	23	18	25	17	23	23	15	16	13	13	28	228
86	Mylapore	...	24	12	18	24	24	20	15	22	20	23	25	23	250
87	Bheemannahpet	...	14	23	17	22	20	24	27	19	25	26	22	34	273
88	Alwarpet	...	29	25	30	26	30	23	26	26	15	30	30	23	313
89	Raja Annamalaipuram	...	30	30	39	34	43	27	32	32	33	38	44	50	432
90	Adayar	...	16	19	14	14	24	18	13	9	14	24	15	28	208
91	Aminjikarai	...	40	40	42	34	40	44	43	45	41	37	39	71	516
92	Vadapalani	...	47	33	38	35	46	31	46	36	43	40	41	47	483
93	Theagarayanagar	...	33	22	36	20	21	22	27	13	26	26	34	28	308
94	Sathyamoorthi Nagar	...	30	53	31	22	33	34	29	36	25	26	35	53	407
95	Rajaji Nagar	...	20	27	27	24	23	26	33	4	26	16	20	42	298
96	Kamraj Nagar	...	27	35	37	23	25	30	35	38	36	28	32	45	391
97	Saidapet (North)	...	30	25	28	15	21	19	33	25	18	20	26	30	290
98	Periapet	...	30	29	22	30	19	26	29	34	24	28	21	31	323
99	Guindy	...	34	34	29	26	21	24	32	34	27	30	24	37	352
100	Saidapet (South)	...	18	18	27	17	26	27	32	42	26	19	30	31	313
Total		...	2,540	2,885	2,831	2,741	2,755	2,422	2,680	2,586	2,595	2,425	2,543	3,491	32,494

Deaths Registered among Principal Communities in each Division during the year 1961.

Division No.	Name of the New Division.	Aliens.		Anglo-Indians.		Indian Christians.		Hindus.		Muslims.		Others.		Total.		Total Deaths Registered Excluding Still-Births.
		Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	
1	New Washermenpet ...	...	...	...	...	11	7	221	269	24	27	...	...	257	303	560
2	Tondiarpet ...	...	...	...	...	26	33	157	181	4	3	...	...	187	217	404
3	Grace Garden ...	...	...	...	...	9	21	89	103	32	39	...	...	130	163	293
4	Sanjeevirayanpet ...	...	...	...	...	1	...	139	100	2	1	...	...	132	111	243
5	Mottai Garden ...	...	...	...	1	2	1	147	143	23	21	...	...	172	166	338
6	Narayanappa Naicken Garden ...	...	...	...	...	...	...	146	126	...	4	...	...	146	130	276
7	Singara Garden ...	...	...	...	...	2	1	162	147	1	...	...	...	165	148	313
8	Royapuram ...	...	...	5	2	23	21	111	114	10	8	1	2	150	147	297
9	Meenakshiammenpet.	...	...	...	...	14	13	201	232	47	55	...	...	262	300	562
10	Old Washermenpet ...	...	...	...	...	19	11	151	169	12	8	...	1	184	180	371
11	Seven Wells (North) ...	...	...	...	3	13	8	357	236	21	6	...	...	391	253	644
12	Ammen Koil (North) ...	...	...	...	2	16	11	88	98	14	16	...	...	118	127	245
13	Muthialpet ...	...	...	...	...	2	...	101	102	11	7	1	...	115	109	224
14	Harbour ...	...	...	...	...	7	1	129	90	54	47	...	...	190	138	328
15	Mannady ...	...	...	...	...	...	4	60	73	6	2	...	...	66	79	145
16	Ammen Koil (South)	...	...	2	3	13	16	64	70	27	20	...	...	106	109	215
17	Seven Wells (South) ...	...	...	2	...	4	9	114	108	28	31	...	...	148	148	296
18	Sowcarpet ...	...	...	...	...	1	...	57	64	1	1	...	...	59	65	124
19	Kothavalchavadi ...	...	...	...	...	3	...	76	70	37	12	...	...	116	82	198
20	Katchaleswarer ...	...	...	...	2	4	3	95	85	7	2	...	...	106	92	198
21	Korukupet ...	...	...	...	...	1	1	200	231	1	...	...	...	202	232	434
22	Kumarasamy Nagar...	...	...	...	...	2	...	240	237	21	20	...	...	263	257	520

23	Dr. Vijayaragavalu Nagar	...	...	...	...	2	9	214	198	155	191	...	...	371	398	769
24	Basin Bridge	...	...	2	1	22	9	128	139	26	24	...	...	178	173	351
25	Kondithope	...	...	...	1	5	2	125	151	4	2	...	...	134	156	290
26	Peddu Naickenpet	...	...	...	1	1	...	218	212	2	1	...	...	221	213	434
27	Perumal Koil Garden.	...	...	...	...	...	...	124	126	...	...	...	...	124	126	250
28	Trevelyan Basin	...	...	...	...	...	...	83	93	...	...	...	...	83	93	176
29	Elephant Gate	...	...	...	...	...	...	82	77	...	...	...	...	82	77	159
30	Edapalayam	...	...	...	...	...	...	107	84	...	...	...	...	107	84	191
31	Perambur	...	...	2	1	3	3	176	146	1	...	...	...	182	150	332
32	Vyasarpady	...	...	...	...	13	12	203	191	6	8	...	...	222	211	433
33	Puliyanthope	...	...	...	...	6	8	232	236	79	66	...	...	317	310	627
34	Wadia Nagar	...	...	1	...	5	9	80	109	53	43	...	...	140	161	301
35	Thiru-Vi-Ka-Nagar	...	...	1	1	22	17	165	153	17	5	...	...	205	176	381
36	Pattalam	...	...	1	...	9	13	87	59	1	4	...	...	98	76	174
37	Thattam Kulam	...	...	...	...	4	3	148	147	6	9	...	...	158	159	317
38	Dr. Besant Nagar	...	...	...	1	16	17	186	195	51	71	...	...	253	284	537
39	Choolai	...	...	...	...	1	2	114	103	1	...	...	...	116	105	221
40	Hospital Garden	...	...	...	2	6	7	123	117	2	2	...	...	131	128	259
41	Sembiam	...	...	4	4	5	13	158	134	14	19	...	...	181	170	351
42	Seru Vellore	...	...	2	3	10	5	112	121	7	4	...	...	131	133	264
43	Agaram	...	...	2	4	4	5	59	63	...	4	...	...	65	76	141
44	Nagamma Ammai Nagar	...	...	...	...	8	11	173	130	10	12	...	...	191	153	344
45	Ayanavaram	...	...	1	...	9	8	205	169	7	13	...	...	222	190	412
46	Nammalvarpet	...	...	...	2	13	14	210	170	3	5	...	...	226	191	417
47	Otteri	...	...	...	1	12	16	193	191	8	4	...	...	214	211	425
48	Kosapet	...	...	...	...	4	5	144	173	3	4	...	...	151	182	333
49	Perumalpet	...	...	...	...	16	17	63	69	2	5	...	1	82	91	173
50	Purasawalkam	...	...	...	1	12	16	108	104	7	6	...	...	127	127	254

VITAL STATISTICS.

STATISTICS SUPPLEMENT No. 6—contd.

Deaths Registered among Principal Communities in each Division during the year 1961.

Division No.	Name of the New Division.	Aliens.		Anglo-Indians.		Indian Christians.		Hindus.		Muslims.		Others.		Total.		Total Deaths Registered (excluding Still-Births.)
		Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	
51	Shenoy Nagar	...	...	1	1	7	4	134	129	9	7	...	...	151	141	292
52	Kilpauk	...	...	6	2	29	19	148	107	9	4	...	...	192	132	324
53	Chetpet	...	...	...	...	13	11	124	118	3	4	...	...	142	133	275
54	Nungambakkam	...	...	...	2	21	11	104	103	3	2	...	...	129	118	247
55	Sevagram	...	...	...	...	8	10	143	124	1	...	...	...	152	134	286
56	Thousand Lights(West)	...	...	...	...	18	15	98	94	21	11	...	...	138	120	258
57	Thousand Lights(East)	...	...	...	2	10	24	55	75	19	9	...	...	84	110	194
58	Pudupakkam	...	...	...	...	4	5	110	105	34	24	...	...	148	134	282
59	Amir Mahal	...	...	...	4	15	11	105	108	61	60	...	...	181	183	364
60	Royapettah	...	...	...	...	8	8	103	91	2	1	...	...	113	100	213
61	Gangadeswarar Koil...	...	...	...	...	1	2	86	83	2	2	...	...	89	87	176
62	Dr. Ambadkar Nagar.	...	...	8	5	19	10	100	104	27	13	...	...	154	132	286
63	Periamet	...	...	4	2	9	5	93	100	8	9	...	...	114	116	230
64	Park Town	...	...	2	1	17	14	615	342	27	15	...	...	667	374	1,041
65	Adikesavapuram	...	...	1	3	14	14	104	111	5	5	...	...	124	133	257
66	Chintadripet	...	...	...	...	1	1	104	99	16	9	...	...	121	109	230
67	Egmore	...	...	...	...	10	14	215	226	10	5	...	...	235	245	480
68	Pudupet	...	...	...	1	19	14	78	72	19	21	...	...	116	108	224
69	Komaleeswaranpet	...	...	...	...	6	2	94	101	6	5	...	...	106	108	214
70	Narasingapuram	...	...	...	...	5	4	80	87	12	10	...	...	98	101	199
71	Nehru Nagar	...	...	3	...	4	3	100	106	80	73	...	...	188	182	370
72	Thiruvateeswaranpet.	...	...	...	...	1	...	109	93	76	54	...	...	186	148	334

Deaths Registered according to Age and Sex in each Division during the year 1961.

Division No.	Name of New Division.	Under 1 years.		1 to 5 years.		5 to 10 years.		10 to 15 years.		15 to 20 years.		20 to 30 years.		30 to 40 years.		40 to 50 years.		50 to 60 years.		60 years and above.		Total.		Grand Total
		Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	
1	New Washermenpet ...	73	86	78	100	13	21	4	5	10	6	6	15	8	18	14	6	8	12	43	37	257	303	560
2	Tondiarpet ...	45	68	70	93	7	11	3	2	3	3	6	10	8	12	8	8	1	7	36	3	187	217	404
3	Grace Garden ...	55	51	36	54	5	5	2	2	1	5	6	9	5	10	8	4	8	5	4	18	130	163	293
4	Sanjeevirayanpet ...	40	35	36	32	6	9	1	1	4	1	5	7	5	10	12	4	10	6	13	6	132	111	243
5	Mottai Garden ...	46	50	57	41	7	10	4	7	6	5	7	13	6	7	12	2	4	7	23	24	172	166	338
6	Nayanappa Naicken Garden.	40	35	50	40	6	12	2	3	3	3	11	6	6	6	7	3	4	5	17	17	146	130	276
7	Singara Garden ...	57	52	36	40	9	8	...	1	2	1	8	12	11	9	9	2	8	6	25	17	165	148	313
8	Royapuram ...	37	27	34	41	5	9	1	1	2	2	9	9	4	10	12	5	6	8	40	35	150	147	297
9	Meenakshiammenpet.	115	106	48	65	16	13	2	7	7	5	11	18	10	16	14	14	5	17	34	39	262	300	562
10	Old Washermenpet ...	54	53	52	56	10	7	3	2	1	1	7	12	5	12	16	17	13	3	23	17	184	180	364
11	Seven Wells (North)...	51	42	26	43	18	8	6	10	12	4	30	30	51	17	62	21	45	19	90	59	391	253	644
12	Ammen Koil (North)...	38	31	25	39	7	6	2	3	1	2	5	6	5	7	4	3	7	5	24	25	118	127	245
13	Muthialpet ...	27	30	27	31	8	7	...	1	1	3	9	7	4	9	6	3	11	5	22	13	115	109	224
14	Harbour ...	49	39	60	40	5	4	2	2	2	4	10	13	6	6	16	10	10	7	30	13	190	138	328
15	Mannady ...	15	17	7	19	5	...	1	...	...	3	9	10	3	3	2	5	11	5	13	17	66	79	145
16	Ammen Koil (South)	22	21	33	40	5	7	1	2	...	3	6	5	3	5	3	5	8	4	25	17	106	109	215
17	Seven Wells (South) ...	44	37	22	28	5	4	3	2	2	4	6	9	5	12	12	11	13	9	36	32	148	148	296
18	Sowcarpet ...	13	13	4	10	2	1	...	1	1	1	2	6	2	3	7	2	5	5	23	23	59	65	124
19	Kothavalchavadi ...	22	20	10	15	5	2	5	1	1	2	10	9	13	1	9	3	28	10	13	19	116	82	198
20	Katchaleeswarar ...	23	24	17	22	4	4	4	1	1	2	4	6	6	4	16	7	11	7	20	15	106	92	198
21	Korukupet ...	56	60	67	76	12	10	3	2	...	6	9	13	7	11	11	6	11	8	26	54	202	232	434
22	Kumarasamy Nagar	82	75	66	82	15	10	10	8	...	8	8	13	7	11	11	6	11	11	8	26	54	202	434

23	Dr. Vijayaragavalu Nagar	102	132	78	139	15	12	5	8	4	4	17	14	19	13	9	16	14	12	108	49	371	398	769
24	Basin Bridge	45	50	67	58	9	5	1	2	...	1	8	8	8	9	11	9	6	6	23	25	178	173	351
25	Kondithope	45	32	32	34	3	2	2	1	...	2	8	15	4	8	5	5	11	9	24	44	134	156	290
26	Peddunaickenpet	57	57	54	44	5	9	...	...	3	4	5	13	7	13	18	14	30	12	42	47	221	213	434
27	Perumal Koil Garden.	31	23	42	43	4	7	...	4	1	1	4	3	2	4	8	8	19	12	13	21	124	126	250
28	Trevelyan Basin	14	15	12	21	1	3	1	1	...	1	6	6	3	2	4	7	8	9	34	28	83	93	176
29	Elephant Gate	16	18	22	25	3	4	1	2	...	...	12	7	3	4	8	4	7	2	10	11	82	77	159
30	Edapalayam	38	24	18	17	7	...	...	...	2	2	3	6	4	2	5	5	8	6	22	22	107	84	191
31	Perambur	46	36	42	29	7	10	2	2	...	2	9	12	4	6	8	10	18	8	46	35	182	150	332
32	Vyasarpady	61	55	56	27	13	13	4	2	3	4	6	16	7	11	13	8	29	16	30	59	222	211	433
33	Puliyanthope	94	77	92	70	12	18	2	1	4	5	12	14	11	14	16	8	14	12	60	74	317	310	627
34	Wadia Nagar	32	46	38	50	3	6	1	3	2	3	7	10	9	5	8	8	30	10	10	20	140	161	301
35	Thiru-Vi-Ka Nagar	55	28	50	62	5	13	2	5	5	5	11	11	7	5	13	6	16	12	41	29	205	176	381
36	Pattalam	28	18	23	16	5	2	2	1	2	1	8	7	2	5	5	6	6	4	17	16	98	76	174
37	Thattam Kulam	44	40	45	64	9	4	5	4	3	3	5	8	6	6	8	2	30	4	3	24	158	159	317
38	Dr. Besant Nagar	70	57	80	110	6	14	2	...	2	2	9	19	8	12	16	11	30	10	32	59	253	284	537
39	Choolai	38	30	18	22	5	3	3	1	2	...	5	6	4	7	7	2	7	7	27	27	116	105	221
40	Hospital Garden	35	31	22	31	6	3	1	...	3	2	8	10	5	7	4	5	11	10	36	29	131	128	259
41	Sembiam	46	47	42	36	7	5	3	6	1	...	10	18	6	9	9	5	15	12	42	32	181	170	351
42	Seru Vellore	28	31	35	32	8	6	3	4	1	2	2	8	5	10	4	1	7	9	38	30	131	133	264
43	Agaram	18	16	23	35	...	1	1	3	3	4	1	2	1	3	3	4	5	4	10	4	65	76	141
44	Nagamma Ammal Nagar	32	35	79	49	7	7	4	6	3	4	9	10	9	8	5	10	13	7	10	17	191	153	344
45	Ayanavaram	61	47	61	48	9	21	2	2	...	3	10	12	10	7	23	12	9	13	37	25	222	190	412
46	Nammalvarpet	61	53	46	40	6	11	2	1	8	4	14	9	22	6	26	12	16	10	25	45	226	191	417
47	Otteri	55	56	65	69	6	6	1	1	3	2	9	7	14	8	7	6	4	10	50	46	214	211	425
48	Kosapet	47	64	35	42	3	4	2	4	1	2	9	11	9	13	10	12	4	9	31	2	151	182	333
49	Perumalpet	41	19	8	21	1	2	1	1	4	4	5	4	8	6	4	3	5	10	5	21	82	91	173
50	Purasawalkam	32	31	32	35	4	3	...	...	3	2	8	8	9	5	9	4	7	7	23	32	127	127	254

VITAL STATISTICS.

STATISTICS SUPPLEMENT No. 7—contd.
Deaths Registered according to Age and Sex in each Division during the year 1960.

Division No.	Name of New Division.	Under 1 year.		1 to 5 years.		5 to 10 years.		10 to 15 years.		15 to 20 years.		20 to 30 years.		30 to 40 years.		40 to 50 Years.		50 to 60 years.		60 years and above.		Total.		Grand total.
		Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	
51	Shenoy Nagar	49	36	48	45	6	9	2	4	3	3	8	7	5	6	6	6	01	5	12	20	151	141	292
52	Kilpauk	33	23	25	17	5	8	6	3	2	4	13	18	16	24	7	7	15	11	51	26	192	132	324
53	Chetpet	42	38	38	43	3	5	...	...	...	...	9	11	3	7	9	7	9	10	23	22	142	133	275
54	Nungambakkam	25	27	25	37	5	5	...	1	5	2	7	4	5	9	9	9	16	4	33	20	129	118	247
55	Sevagram	41	29	40	36	9	2	...	3	1	4	6	10	14	11	3	3	10	11	24	21	152	134	286
56	Thousand Lights (West)	29	27	27	29	6	6	2	1	...	3	6	6	3	5	9	5	15	8	42	28	138	120	258
57	Thousand Lights (East)	25	26	22	29	1	6	2	1	3	4	3	7	2	7	7	4	6	4	13	27	84	110	194
58	Pudupakkam	39	40	41	38	4	2	3	1	2	3	8	7	7	13	5	5	6	12	25	18	148	134	282
59	Amir Mahal	37	52	34	67	6	8	3	...	4	3	6	22	11	28	8	8	17	10	24	14	181	183	361
60	Royapettah	41	24	15	21	3	5	3	2	3	2	3	5	12	4	6	6	8	11	28	13	113	100	213
61	Gangadeswarar Koil...	25	15	18	22	4	4	...	3	...	...	6	...	6	4	4	1	11	8	21	20	89	87	176
62	Dr. Ambadkar Nagar.	33	21	21	29	11	5	...	1	...	...	9	10	4	12	6	6	35	12	23	42	154	132	286
63	Periamet	30	30	23	25	6	4	...	3	2	2	3	6	1	6	7	7	14	12	25	28	114	116	230
64	Park Town	34	48	60	40	39	24	11	3	24	12	48	76	55	110	48	120	55	145	45	33	667	374	1,041
65	Adikesavapuram	23	28	28	34	8	4	1	...	...	6	10	9	7	13	7	11	8	8	21	33	124	133	257
66	Chintadripet	42	27	25	19	4	3	2	3	...	3	7	...	2	6	6	6	8	9	27	32	121	109	230
67	Egmore	137	76	26	27	2	4	4	...	4	3	8	2	18	13	20	18	24	24	21	60	235	245	480
68	Pudupet	25	28	25	35	8	2	2	...	1	6	2	10	2	7	6	16	9	9	20	12	116	108	224
69	Komaleeswaranpet	28	21	28	27	6	5	1	2	...	1	6	2	5	9	12	9	7	7	17	18	106	108	214
70	Narasingapuram	48	30	22	27	1	4	...	1	...	3	4	5	2	7	2	5	8	8	6	22	98	91	199
71	Nehru Nagar	57	55	33	37	4	3	...	2	5	4	10	8	10	19	6	15	9	9	37	40	188	182	370
72	Thiruvatteswaranpet.	52	35	40	28	1	3	1	3	2	1	10	8	11	14	14	20	20	10	20	20	188	182	370

73	Chepauk	...	39	49	11	25	2	2	1	2	2	2	2	3	5	14	8	4	5	3	14	4	25	24	112	120	232
74	Marina	...	47	50	53	53	4	10	1	1	...	1	...	1	10	6	5	5	8	8	8	6	26	37	164	176	340
75	Triplicane	...	22	15	15	13	2	6	2	2	...	2	2	2	3	4	3	3	8	3	10	7	30	36	95	94	189
76	Jam Bazaar	...	53	38	41	49	9	11	2	4	4	4	...	...	8	12	9	8	14	9	15	3	29	55	184	189	373
77	Mirsaibpet	...	61	42	37	60	8	10	6	3	3	3	3	1	8	6	9	14	12	7	28	14	38	48	210	205	415
78	Azad Nagar	...	44	43	54	55	6	5	2	4	4	4	4	4	12	11	13	6	14	1	40	11	41	50	229	190	419
79	Durgapuram	...	42	32	43	52	10	7	...	6	1	1	1	5	10	3	6	13	7	6	12	10	36	37	168	171	339
80	Krishnampet	...	46	48	59	75	10	4	4	1	1	1	1	4	9	12	9	10	12	8	10	11	30	26	190	199	389
81	Teynampet	...	39	39	30	35	9	5	1	6	1	1	1	1	8	11	4	4	8	6	11	6	29	23	140	136	276
82	Vivekanandapuram	...	30	26	20	28	2	5	2	...	2	2	2	2	6	5	6	8	6	2	10	6	31	39	115	121	236
83	Madava Perumal- puram	...	31	19	29	36	7	5	...	1	1	1	...	...	4	9	2	1	6	3	8	7	18	30	106	111	217
84	Karniswarapuram	...	39	62	53	68	9	10	5	2	3	3	3	4	7	10	8	8	2	8	6	10	29	28	161	210	371
85	Santhome	...	23	31	3	18	4	...	...	3	1	1	1	1	3	2	3	6	6	5	3	14	67	35	113	115	228
86	Mylapore	...	30	26	51	22	4	3	1	...	2	2	2	1	6	3	5	6	9	4	22	7	9	39	139	111	250
87	Bheemannapet	...	42	33	33	45	7	6	3	2	1	1	1	3	8	7	4	6	8	3	7	13	18	24	131	142	273
88	Alwarpet	...	33	45	48	42	6	7	2	...	3	3	3	3	5	10	1	7	10	14	12	11	27	27	147	166	313
89	Raja Annamalaipuram	...	59	72	42	58	15	6	3	1	4	4	4	4	8	9	5	7	5	9	15	9	65	36	221	211	432
90	Adayar	...	28	25	21	24	5	2	1	1	2	2	2	3	5	4	7	5	8	6	9	4	21	27	107	101	203
91	Aminjikarai	...	56	72	48	77	7	10	3	2	3	3	3	6	14	11	14	16	15	5	28	14	53	62	241	275	516
92	Vadapalani	...	62	76	55	73	5	7	6	6	6	6	6	1	12	9	8	15	15	6	17	12	41	54	224	259	483
93	Theagarayanagar	...	35	23	42	47	5	5	4	4	1	1	1	2	7	14	3	9	7	9	9	8	33	30	146	162	308
94	Sathyamoorthi Nagar	...	63	53	58	58	8	6	1	5	1	1	1	5	4	6	3	5	5	7	14	13	41	51	198	209	407
95	Rajaji Nagar	...	45	38	37	38	5	4	5	9	1	1	1	...	5	7	7	4	7	4	7	11	37	24	153	145	298
96	Kamraj Nagar	...	52	53	53	58	9	6	1	1	3	3	3	3	6	4	8	9	8	10	11	13	42	41	193	198	391
97	Saidapet (North)	...	38	26	38	42	8	7	2	2	1	1	1	2	7	7	6	4	9	5	7	5	44	30	160	130	290
98	Periapet	...	39	44	43	52	11	9	5	...	4	4	4	1	4	10	8	5	7	6	11	12	18	34	150	173	323
99	Guindy	...	41	35	34	46	11	5	3	3	2	2	2	4	10	9	9	7	11	5	23	8	39	47	183	169	352
100	Saidapet (South)	...	36	28	29	27	8	11	2	2	4	4	4	3	12	5	8	5	11	7	24	14	34	33	168	145	313
Total		...	4347	4018	3822	4265	682	672	215	232	242	276	803	953	822	819	1113	725	1430	941	3077	3040	16553	15941	32494		

Deaths from Principal Causes registered in the Divisions during the year 1961.

Division No.	Name of the Division.	Plague.	Cholera.	Small-pox.	Measles.	Enteric fever	Kala-Azar.	Malaria.	Influenza.	Other Fevers.	Dysentery.	Diarrhoea.	Tuberculosis including T.B. of lungs	General respiratory diseases.	Injuries.	Maternal Deaths.	All other causes.	Total Deaths registered (excluding Still-Births).
1	New Washermenpet ...	...	...	53	...	1	...	...	...	78	43	66	4	154	...	2	159	560
2	Tondiarpet ...	...	...	27	...	1	...	...	...	72	52	23	2	131	...	...	96	404
3	Grace Garden ...	...	...	18	...	2	1	...	...	51	27	12	1	83	1	3	94	293
4	Sanjeevirayanpet ...	...	...	11	...	2	...	...	...	14	17	...	2	52	3	...	142	243
5	Mottai Garden ...	...	...	20	...	2	...	...	...	14	23	2	5	62	4	1	205	338
6	Narayanappa ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
7	Naciken Garden. ...	...	...	19	...	2	...	...	...	7	32	...	5	60	...	...	151	276
8	Singara Garden ...	...	...	7	...	1	...	...	1	49	24	28	3	84	...	1	115	313
9	Royapuram ...	...	...	18	...	3	...	...	...	42	18	14	5	63	...	...	134	297
10	Meenakshiammenpet. ...	...	...	34	...	1	...	...	...	67	36	46	1	120	...	11	246	562
11	Old Washermenpet ...	...	...	41	...	2	...	1	...	15	28	...	4	86	2	1	184	364
12	Seven Wells (North) ...	...	...	19	...	10	1	...	...	17	18	25	57	57	3	...	437	644
13	Ammen Koil (North) ...	...	...	26	...	8	...	...	...	...	12	15	5	44	...	...	135	245
14	Muthialpet ...	...	...	14	...	2	...	...	...	17	12	12	1	41	...	...	125	224
15	Harbour ...	...	...	6	...	1	...	...	...	17	34	21	4	69	2	2	172	328
16	Mannady ...	...	...	11	...	...	...	...	...	17	6	7	...	25	...	...	79	145
17	Ammen Koil (South) ...	...	...	20	...	...	...	...	...	16	15	12	4	46	...	...	102	215
18	Seven Wells (South) ...	...	...	6	...	1	...	...	...	13	11	9	5	40	...	2	209	296
19	Sowcarpet ...	...	...	2	...	...	...	...	...	15	...	11	3	17	...	...	76	124
20	Kothavalchavadi ...	...	...	8	...	...	...	...	...	16	14	8	7	47	2	...	96	198
21	Katchaleeswarar ...	...	...	9	...	1	1	...	...	15	7	16	4	29	...	...	116	198
22	Korukupet ...	...	...	17	...	1	...	...	...	14	57	2	5	99	4	1	234	434
23	Kumarasamy Nagar ...	...	...	24	...	...	...	...	...	19	39	...	5	104	2	...	327	520
24	Dr. Vijayaragavalu Nagar	...	...	50	...	1	...	...	...	14	71	4	6	168	2	1	452	769

No.	Name	1906	1907	1908	1909	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	1920
26	Peddu Naickenpet	17	...	...	...	2	...	...	14	26	9	65	...	...	2	288
27	Perumal Koil Garden.	20	...	...	...	2	...	...	28	21	5	53	...	...	...	104
28	Trevelyan Basin	4	...	...	...	1	...	1	5	7	4	38	...	...	...	101
29	Elephant Gate	8	...	...	...	...	...	...	8	12	1	42	...	...	1	71
30	Eapalayam	3	...	...	...	1	...	...	7	5	3	41	...	...	1	117
31	Perambur	11	...	...	...	...	...	...	20	28	5	58	...	...	...	185
32	Vyasarpady	14	...	...	...	1	...	...	36	35	5	97	...	...	...	204
33	Puliyanthope	...	...	...	...	1	...	...	58	23	11	93	...	...	...	428
34	Wadia Nagar	7	...	...	...	...	...	...	18	8	8	58	...	...	...	186
35	Thiru-Vi-Ka Nagar	10	...	...	...	...	...	...	43	8	9	68	...	...	1	227
36	Pattalam	2	...	...	...	3	...	...	14	15	4	34	...	...	...	62
37	Thattam Kulam	4	...	...	...	1	...	...	31	31	10	71	...	...	...	120
38	Dr. Besant Nagar	7	...	...	...	2	...	...	41	23	3	94	...	...	...	340
39	Choolai	1	...	...	...	3	...	...	10	19	10	47	...	...	2	88
40	Hospital Garden	4	...	...	...	3	...	...	15	19	9	49	...	...	1	129
41	Sembiam	2	...	...	...	...	...	...	29	37	5	61	...	...	...	207
42	Seru Vellore	7	...	...	...	2	...	...	20	22	4	33	...	...	...	166
43	Agaram	...	...	...	...	2	...	...	8	9	5	31	...	...	1	73
44	Nagamma Ammai Nagar	1	...	...	...	...	...	...	30	47	6	57	...	...	...	184
45	Ayanavaram	6	...	...	...	2	...	...	25	38	12	88	...	...	...	226
46	Nammalvarpet	4	...	...	...	1	...	...	25	60	15	116	...	...	...	178
47	Otteri	7	...	...	...	1	...	...	43	62	11	122	...	...	1	165
48	Kosapet	3	...	...	...	4	...	...	22	47	13	85	...	...	...	147
49	Perumalpet	1	...	...	...	...	...	...	9	9	4	33	...	...	1	104
50	Purasawalkam	5	...	...	...	...	...	...	14	23	9	97	...	...	...	94
51	Shenoy Nagar	3	...	...	...	...	...	...	39	3	3	49	...	...	...	179
52	Kilpauk	2	...	...	...	1	...	...	20	5	42	30	...	...	3	208
53	Chetpet	5	...	...	...	...	...	1	32	14	4	70	...	...	...	113
54	Nungambakkam	3	...	...	...	1	...	...	21	12	5	54	...	...	...	90
55	Sevagram	2	...	...	...	1	...	...	31	15	5	62	...	...	...	110

Death from Principal Causes registered in the Divisions during the year 1961—*contd.*

Division No.	Name of the Division.	Plague.	Cholera.	Small-pox.	Measles.	Enteric Fever	Kala-Azar.	Malaria.	Influenza.	Other Fevers.	Dysentery.	Diarrhoea.	Tuberculosis including T.B. of lungs.	General respiratory diseases.	Injuries.	Maternal Deaths.	All other causes.	Total Deaths registered excluding Still-Births.)
56	Thousand Lights (West)	...	...	...	...	1	1	1	...	51	25	15	4	54	...	1	105	258
57	Thousand Lights (East)	...	...	6	...	...	...	...	...	17	25	2	4	39	...	...	101	194
58	Pudupakkam	...	...	11	...	...	...	...	...	19	21	3	1	79	1	...	147	282
59	Amir Mahal	...	...	7	...	4	...	...	...	11	28	8	26	68	...	...	212	364
60	Royapettah	...	...	2	...	3	...	...	...	14	13	2	2	47	...	...	130	213
61	Gangadeswarar Koil...	...	...	1	1	2	...	1	...	11	3	12	4	58	...	...	83	176
62	Dr. Ambadkar Nagar.	...	...	1	1	2	...	...	...	10	19	21	12	61	...	...	159	286
63	Periamet	...	...	8	...	2	...	...	2	12	7	17	3	53	...	1	126	230
64	Park Town	...	...	10	...	17	...	1	...	13	56	51	72	150	8	1	662	1,041
65	Adikesavapuram	...	...	2	...	4	...	...	...	16	21	24	5	38	...	2	146	257
66	Chintadripet	...	...	8	...	2	...	...	...	17	11	16	4	40	1	14	129	230
67	Egmore	...	...	7	...	6	...	...	...	13	15	11	4	44	1	2	365	480
68	Pudupet	...	...	1	...	2	...	...	...	14	26	6	6	58	1	1	108	224
69	Komaleeswaranpet	...	...	3	...	1	...	...	...	12	21	2	7	41	...	...	126	214
70	Narasingapuram	...	...	3	...	1	...	...	...	14	22	13	4	31	1	...	110	199
71	Nehru Nagar	...	...	20	...	4	...	...	...	13	38	11	6	71	3	...	204	370
72	Thiruvatteswaranpet.	...	...	5	...	...	...	...	...	18	29	14	5	76	3	8	184	344
73	Chepauk	...	...	6	...	2	...	...	...	11	18	24	5	25	...	...	133	232
74	Marina	...	...	16	...	1	...	...	...	22	32	19	5	57	...	1	188	340
75	Triplicane	...	...	10	...	2	...	...	1	12	7	10	3	35	...	...	108	189
76	Jam Bazaar	...	...	19	...	4	...	...	...	25	42	31	16	29	...	...	207	373
77	Mirsaibipet	...	...	13	...	3	...	...	...	27	22	18	10	138	...	1	183	415
78	Azad Nagar	...	...	17	...	2	...	...	...	15	43	49	16	117	...	...	160	419
79	Durgapuram	...	...	7	...	1	...	...	...	17	40	13	4	102	...	...	155	339
80	Krishnammet	...	...	20	...	...	...	...	...	19	...	...	...	...	...	...	...	...

Births, Deaths and Infant Deaths with rates by months in 1961 and 1960.

Months.		1961						1960					
		Births registered excluding Still Births.	Birth rate.	Deaths registered excluding Still Births.	Death rate.	Infant Deaths.	Infant Deaths rate.	Births registered excluding Still Births.	Birth rate.	Deaths registered excluding Still Births.	Death rate.	Infant Deaths.	Infant Deaths rate.
January	...	3,653	25.25	2,540	17.55	597	163.42	2,868	15.13	2,373	12.89	574	94.86
February	...	5,429	37.52	2,885	19.94	648	119.35	5,069	27.50	3,168	17.21	753	124.44
March	...	5,393	37.28	2,831	19.56	765	141.85	4,649	25.26	2,765	15.02	636	105.10
April	...	5,975	41.30	2,741	18.94	647	108.28	5,183	28.16	2,104	11.43	480	79.32
May	...	5,463	38.33	2,755	19.04	789	144.42	6,445	35.02	2,631	14.25	711	117.54
June	...	6,255	43.23	2,422	16.74	672	107.43	5,850	31.79	2,352	12.78	626	103.45
July	...	5,896	40.75	2,680	18.52	783	132.80	6,526	35.01	2,418	13.14	731	120.80
August	...	5,878	40.63	2,586	17.87	662	112.62	6,828	37.10	2,775	15.08	820	135.51
September	...	5,420	37.46	2,595	17.93	683	126.01	6,126	33.29	2,441	13.26	689	113.86
October	...	6,029	41.67	2,425	16.63	581	96.36	7,047	38.29	3,133	17.02	811	134.03
November	...	7,059	48.79	2,543	17.65	621	87.96	6,608	35.91	3,114	16.92	822	135.84
December	...	9,787	67.65	3,491	24.13	917	93.68	9,412	51.15	4,455	24.21	1,179	194.84
Total	...	72,237	41.61	32,494	18.71	8,365	115.79	72,610	32.88	33,729	15.27	8,832	121.63

Birth Deaths and Infant Deaths registered among Principal Communities during 1961 compared with 1960.

		1961			1960		
		Total number of births registered excluding Still Births.	Total number of deaths registered excluding still births.	Infant Deaths registered.	Total number of Births registered excluding still births.	Total number of deaths registered excluding still births.	Infant deaths registered.
Community.							
Aliens	...	19	4	...	24	12	...
Anglo-Indians	...	144	116	14	183	132	14
Indian-Christians	...	3,199	1,499	273	3,370	1,479	333
Muslims	...	5,529	3,133	802	5,624	3,214	907
Hindus	...	63,324	27,720	7,273	63,405	28,882	7,576
Others	...	22	22	3	4	10	14
Total	...	72,237	32,494	8,365	72,610	33,729	8,832

VITAL STATISTICS.

STATISTICS SUPPLEMENT No. 11

Infant Deaths among Principal Communities during 1961.

Community		Under seven days		Seven days and under one month		One month and under six months		Six months and under one year		Total		Total of Males and Females
		Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	
Aliens	...	...	...	...	...	...	...	...	...	...	...	...
Anglo-Indians	...	1	2	1	...	2	4	2	2	6	8	14
Indian Christians	...	37	33	10	28	32	38	49	46	128	145	273
Muslims	...	76	45	37	53	165	164	144	118	422	380	802
Hindus	...	1,117	849	479	431	1,058	1,025	1,135	1,179	3,789	3,484	7,273
Others	...	2	...	...	...	...	...	...	1	2	1	3
Total	...	1,233	929	527	512	1,257	1,231	1,330	1,346	4,347	4,018	8,365

VITAL STATISTICS.

Infant Deaths from Principal causes by age periods in 1961.

Age periods.	Cholera.		Small pox.		Measles.		Diphtheria.		Enteric fever.		Malaria.		Other fever.		Dysentery.		Diarrhoea.		Infantile debility and Malnutritious, including Pre-mature births, etc.		Diseases of the Respiratory system.		Convulsions.		Other causes.		Total Infant deaths.		
	Deaths.	Rate.	Deaths.	Rate.	Deaths.	Rate.	Deaths.	Rate.	Deaths.	Rate.	Deaths.	Rate.	Deaths.	Rate.	Deaths.	Rate.	Deaths.	Rate.	Deaths.	Rate.	Deaths.	Rate.	Deaths.	Rate.	Deaths.	Rate.	Deaths.	Rate.	
Under one week	34	1.57	1	0.05	3	0.14	1,573	72.76	191	8.88	4	0.19	356	16.47	2,162	25.85	
One week and under one month.	...	80.77	...	...	...	...	...	...	...	...	...	...	27	2.60	13	1.25	36	3.46	666	64.10	140	13.47	15	1.44	134	12.90	1,039	12.42
One month and under six months.	...	712.85	...	...	4	0.16	...	...	...	...	...	...	159	6.35	156	6.26	340	13.67	77	3.10	904	36.33	10	0.40	767	30.83	2,488	29.74
Six months and under one year	...	572.13	3	0.04	10	0.37	6	0.22	...	...	...	...	170	6.35	282	10.54	318	11.88	7	0.26	1,036	38.85	26	0.97	761	28.43	2,676	31.99
Total...	136	1.63	3	0.04	14	0.17	6	0.07	...	390	4.65	452	5.40	697	8.33	2,323	26.57	2,271	27.15	55	0.66	2,018	24.12	8,365	100.00

Infant Deaths from Principal causes by months in 1961.

Months.	Cholera.	Small-pox.	Measles.	Diphtheria.	Enteric Fever.	Malaria.	Other Fevers.	Dysentery.	Diarrhoea.	Infantile debility & Malformations including premature births.	Diseases of the Respiratory system.	Convulsions.	Other causes.	Total Infant deaths in 1961.	Total Infant deaths in 1960.
January	...	13	1	2	1	...	39	37	69	123	154	3	155	597	574
February	...	17	...	1	...	...	29	40	49	171	197	8	136	648	753
March	...	25	1	...	1	...	59	39	53	227	174	7	179	765	636
April	...	28	1	2	1	...	45	37	52	157	167	5	152	647	480
May	...	10	...	...	1	...	40	30	49	179	204	4	272	789	711
June	...	9	...	1	...	...	31	27	50	209	175	4	166	672	626
July	...	11	...	2	...	...	28	52	66	207	216	5	196	783	731
August	...	8	...	2	1	...	22	31	46	166	210	4	172	662	820
September	...	1	...	1	...	...	28	38	67	201	178	6	163	683	689
October	...	3	...	2	1	...	25	31	54	151	173	3	138	581	811
November	...	3	...	1	...	...	21	37	66	210	183	2	98	621	822
December	...	8	...	...	...	...	23	53	76	322	240	4	191	917	1,179
Total	...	136	3	14	6	...	390	452	697	2,323	2,271	55	2,018	8,365	8,832

Statement of Live Births by age of Mother and order of Live Births registered in order of confinement at Live Births during 1961.

Age of mother at birth.	Order of confinement at Live Births.															Total.
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15 and above.	
Under 15 years	81	1	1	...	...	...	...	...	...	...	...	...	...	...	...	83
15 to 20 years	6,978	2,621	850	240	50	18	3	...	3	...	...	...	...	...	...	10,743
20 to 25 years	5,947	7,172	5,339	2,470	1,094	412	161	34	15	3	...	...	...	...	...	22,647
25 to 30 years	1,630	3,105	4,819	4,853	3,636	2,316	1,301	519	155	61	16	7	...	...	...	22,418
30 to 35 years	312	583	1,175	1,645	2,030	1,981	1,617	971	511	265	91	20	4	3	1	11,209
35 to 40 years	65	137	273	441	573	627	738	636	432	261	127	59	19	11	2	4,401
40 to 45 years	3	8	31	46	50	58	98	89	61	77	15	19	6	1	...	562
45 years	...	...	1	2	5	...	2	...	6	...	1	5	...	...	...	28
46 years	...	...	1	...	...	1	2	1	...	...	...	1	...	...	...	6
47 years	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	1
48 years	...	...	...	1	...	...	2	...	...	...	...	...	...	...	...	3
49 years	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
50 years and above	...	...	...	1	...	...	...	...	...	1	...	...	...	...	...	2
Not Stated	34	19	22	16	24	6	4	4	3	1	...	1	...	...	...	134
Total ...	15,030	13,646	12,512	9,715	7,462	5,419	3,929	2,254	1,186	675	250	112	29	15	3	72,237

VITAL STATISTICS.

STATISTICS SUPPLEMENT No. 15

Deaths registered from Principal causes with rates in 1961 compared with the previous five years.

Year.	Plague		Cholera.		Small-pox.		Measles.		Enteric Fever.		Malaria.		Other Fevers.		Dysentry.		Diarrhoea.		Tubercle including T.B. of lungs.		General Respirator diseases.		Injuries.		Maternal deaths.		All other causes.		Total deaths	
	Deaths.	Rate.	Deaths.	Rate.	Deaths.	Rate.	Deaths.	Rate.	Deaths.	Rate.	Deaths.	Rate.	Deaths.	Rate.	Deaths.	Rate.	Deaths.	Rate.	Deaths.	Rate.	Deaths.	Rate.	Deaths.	Rate.	Deaths.	Rate.	Deaths.	Rate.	Deaths.	Rate.
1956	68	0.04	...	...	143	0.08	33	0.02	3,022	1.77	2,533	1.49	2,883	1.69	396	0.23	7,691	4.51	495	0.29	153	0.09	16,510	9.69	3,397	19.90
1957	414	0.24	428	0.24	2	0.001	187	0.10	18	0.01	2,520	1.43	2,640	1.50	2,545	1.45	615	.035	8,640	4.89	523	0.30	150	0.09	18,137	10.31	36,783	20.92
1958	63	0.034	1389	0.76	3	0.001	165	0.09	14	0.007	3,728	2.5	2,868	1.58	2,210	1.21	629	0.34	8,174	4.50	129	0.07	145	0.07	17,371	9.57	36,888	23.34
1959	64	0.03	517	0.24	1	0.001	108	0.05	8	0.003	1,015	0.48	2,983	1.41	1,902	0.90	672	0.31	8,415	3.98	79	0.03	140	0.06	17,690	8.38	33,515	15.88
1960	521	0.23	2	0.000	137	0.06	4	0.001	1,341	0.61	2,837	1.28	1,894	0.85	730	0.33	7,988	3.64	79	0.19	119	0.05	18,077	8.19	33,729	15.27
Mean of the previous five years.	108	0.60	584	0.32	1	0.00	148	0.08	15	0.008	2,325	1.35	2,772	1.45	2,287	1.22	608	0.31	8,174	4.30	201	0.17	141	0.07	17,557	9.22	34,968	19.06
1961	904	0.52	7	0.00	209	0.12	6	0.001	1,904	1.10	2,694	1.55	1,812	1.04	729	0.42	6,927	3.99	66	0.03	83	0.05	17,153	9.88	32,494	18.71

VITAL STATISTICS.

STATISTICS SUPPLEMENT No. 16

List of deaths according to cause groups during the Year 1961.

GROUP I.

Serial No.	Cause.	Total No. of deaths.
1	Typhoid	209
2	Para Typhoid	119
3	T. B. Respiratory System	464
4	T. B. All forms	285
5	Diphtheria	64
6	Small-pox	904
7	Influenza	8
8	Whooping cough	35
9	Acute polimylitis and polio Encrephalitis	10

GROUP II.

1	Cholera	Nil
2	Dysentery all forms... ..	2,694
3	Scarlet fever and sterepto coccal throat	2
4	Meningo Coccal infection	8
5	Plague	Nil
6	Measles	7
7	Malaria	6
8	<i>Malignant neoplasam</i>	23
	(a) of buccal carvity and pharynx	12
	(b) Uterus	40
	(c) Stomach and Duo denum	56
	(d) Breast	15
	(e) All other sites	133
9	Rheumatic fever	37
10	Chronic Rheumatic heart disease	5
11	Artrio-Sclerothic and dignenerative heart disease	5
12	Other diseases of heart	502
13	Hypertensive heart diseases	142
14	Preumonia	3,954
15	Bronchitis	1,060

GROUP II—*contd.*

Serial No.	Cause.				Total No. of deaths.
16	Motor Vehicle accidents	...	...	...	Nil (Not Reported)
17	All other accidents	...	...	...	191
18	Suicide and self inflicted injury	...	...	...	116
19	Homicide and operation of war	...	...	...	Nil
20	Anaemias	...	...	...	294
21	Cirrhosis of liver	...	...	...	321
22	Kala-azar	...	...	...	4
23	Meningo co-coal Meningitis	...	...	...	23
24	Maternal deaths	...	...	...	83
25	Acute infectious encephalitis	...	...	...	46
26	Tetanus	...	...	...	177
27	Anthrax	...	...	...	4
28	Chicken pox	...	...	...	2
29	Infectious Hepatitis	...	...	...	25
30	Rabies	...	...	...	34
31	Filariasis	...	...	...	15
32	Kwashiorkor	...	...	...	34

Certification of cause of deaths for 1961.

1	Medically certified by				
(a)	Practitioners of Modern Medicines	...	...	...	890
(b)	Other Medical practitioners	...	...	...	209
2	Not Medically certified but verified by Medical and Para Medical Staff obtaining symptoms and conditions from the relations of the deceased	...	...	...	15,366
3	Deaths certified by—				
(1)	Medical Officers of Hospitals	...	...	...	7,563
(2)	Private Medical Practitioners	...	...	...	682
(3)	Hakims and vaidas	...	...	...	2
(4)	Commissioner of Police	...	...	...	508
(5)	Coroner of Bombay and District Registrars	...	...	...	Nil

Vaccinations Performed by Health Staff and Small-Pox Eradication Programme Staff during each month in 1961.

Months.	Primary Vaccinations.						Re-Vaccinations.					
	Number of persons vaccinated.			Results.			Number of persons Re-vaccinated.			Results.		
	Males.	Females	Total.	Success-ful.	Failure.	Absent.	Males.	Females.	Total.	Success-ful.	Failure.	Absent.
January	...	2,743	2,554	5,297	5,297	...	15,141	16,148	31,289	894	23,173	7,222
February	...	3,033	2,803	5,836	5,778	58	22,538	23,075	45,613	1,045	34,109	10,459
March	...	3,405	3,020	6,425	6,425	...	30,564	32,350	62,914	2,464	44,095	16,355
April	...	3,509	3,413	6,922	6,922	...	49,951	51,153	1,01,104	4,867	85,857	10,380
May	...	2,420	2,313	4,733	4,733	...	59,568	66,147	1,25,715	6,518	88,272	30,925
June	...	3,374	3,135	6,509	6,509	...	65,191	68,760	1,33,951	9,116	84,495	40,340
July	...	3,045	2,979	6,024	6,024	...	72,658	78,465	1,51,123	9,727	95,478	45,918
August	...	2,939	2,951	5,890	5,890	...	82,588	81,428	1,64,016	8,278	1,24,236	31,502
September	...	2,347	2,250	4,597	4,597	...	41,541	49,593	91,134	4,398	69,785	16,951
October	...	2,090	2,114	4,204	4,204	...	9,517	9,803	19,320	916	13,716	4,688
November	...	1,914	1,820	3,734	3,734	...	8,218	8,644	16,862	548	12,186	4,128
December	...	2,186	2,049	4,235	4,235	...	14,084	12,787	26,871	3,199	17,815	5,857
Total	...	33,005	31,401	64,406	64,348	58	4,71,559	4,98,353	9,69,912	51,970	6,93,217	2,24,725

VITAL STATISTICS.

Particulars of Vaccinations performed by Health Staff and Small-pox Eradication Programme Staff

Division Number.	Name of the New Division.	Total number of persons vaccinated.			Primary		
					Total.		
		Males.	Females.	Total.	Males.	Females.	Totals.
1	New Washermenpet ...	7,449	9,360	16,809	532	581	1,113
2	Tondiarpet ...	5,903	7,165	13,068	374	374	748
3	Grace Garden ...	6,672	8,855	15,527	389	377	766
4	Sanjeevirayanpet ...	2,393	2,698	5,091	302	370	672
5	Mottai Garden ...	3,517	4,075	7,592	281	297	578
6	Narayanappa Naicken Garden ...	3,962	5,682	9,644	254	256	510
7	Singana Garden ...	6,514	8,088	14,602	315	353	668
8	Royapuram ...	6,953	9,055	16,008	342	378	720
9	Meenakshiammenpet ...	6,853	9,054	15,907	393	427	820
10	Old Washermenpet ...	3,960	4,054	8,014	440	466	906
11	Seven Wells (North) ...	4,710	5,134	9,844	320	321	641
12	Ammen Koil (North) ...	3,925	3,937	7,862	282	284	566
13	Muthialpet ...	5,478	5,049	10,527	306	253	559
14	Harbour ...	5,263	4,409	9,672	242	226	468
15	Mannady ...	4,592	4,516	9,108	236	238	474
16	Ammen Koil (South) ...	3,841	3,698	7,539	214	176	390
17	Seven Wells (South) ...	6,039	6,184	12,223	329	278	607
18	Sowcarpet ...	4,583	3,952	8,535	169	138	307
19	Kothavalchavadi ...	7,636	6,182	13,818	224	221	445
20	Katchaleeswarar ...	3,653	8,285	11,938	266	253	519
21	Korukupet ...	4,149	2,949	7,098	375	357	732
22	Kumaraswamy Nagar ...	3,980	3,975	7,955	457	452	909
23	Dr. Vijayaraghavalu Nagar ...	4,670	4,660	9,330	447	384	831
24	Basin Bridge ...	3,416	3,765	7,181	271	273	544
25	Kondithope ...	5,439	5,717	11,156	340	366	706
26	Peddu Naickenpet ...	4,990	5,203	10,193	354	382	736
27	Perumal Koil Garden ...	3,053	3,093	6,146	192	243	435
28	Trevelyan Basin ...	3,068	2,850	5,918	149	127	276
29	Elephant Gate ...	2,412	2,840	5,252	180	180	360
30	Edapalayam ...	2,655	3,248	5,903	236	251	487
31	Perambur ...	2,878	2,887	5,765	398	316	714
32	Vyasarpady ...	2,070	2,180	4,250	186	162	348
33	Pulianthope ...	7,823	7,462	15,285	612	576	1,188
34	Wadia Nagar ...	5,800	5,558	11,358	329	324	653
35	Thiru-Vi-Ka Nagar ...	8,192	5,140	13,332	381	404	785
36	Pattalam ...	4,567	4,757	9,324	166	150	316
37	Thattan Kulam ...	5,714	5,914	11,628	201	226	427
38	Dr. Besant Nagar ...	6,745	5,502	12,247	411	408	819
39	Choolai ...	5,672	6,863	12,535	226	226	452
40	Hospital Garden ...	5,937	6,525	12,462	243	243	486
41	Sembiam ...	2,540	1,216	3,756	299	275	574
42	Seru Vellore ...	4,310	2,419	6,729	194	179	373
43	Agaram ...	4,517	4,476	8,993	231	166	397
44	Nagamma Ammai Nagar ...	3,034	3,235	6,269	370	293	663
45	Ayanavaram ...	5,980	4,848	10,828	394	347	741
46	Nammalvarpet ...	5,072	4,347	9,419	337	282	619
47	Otteri ...	5,111	4,594	9,705	399	345	744
48	Kosapet ...	6,430	7,382	13,812	471	439	910
49	Perumalpet ...	5,600	5,924	11,524	266	277	543
50	Purusawalkam ...	5,447	6,108	11,555	354	326	680

each Division during the year 1961.

Vaccination.							Re-vaccination.						Percentage of successful cases in which results were known.	
Successful							Total			Results			Primary.	Re-vaccination.
Under one year.	One year and under five years.	Five years and under ten years.	Ten years and above.	Total.	Unsuccessful.	Unknown.	Males.	Females.	Total.	Successful.	Failure.	Absent.		
728	360	25	...	1,113	...	...	6,917	8,779	15,696	251	10,046	5,399	100.0	1.5
426	291	31	...	748	...	...	5,529	6,791	12,320	394	8,363	3,563	100.0	1.5
422	317	26	1	766	...	...	6,283	8,478	14,761	605	(10,021	4,135	100.0	4.1
448	212	12	...	672	...	...	2,091	2,328	4,419	256	3,363	800	100.0	5.6
356	204	18	...	578	...	...	3,236	3,778	7,014	270	5,510	1,234	100.0	3.8
367	132	11	...	510	...	...	3,708	5,426	9,134	411	5,780	2,943	100.0	4.5
474	181	13	...	668	...	...	6,199	7,735	13,934	466	9,214	4,254	100.0	3.4
408	278	34	...	720	...	...	6,611	8,677	15,288	528	8,927	5,833	100.0	3.4
428	356	36	...	820	...	...	6,460	8,627	15,087	603	10,402	4,082	100.0	4
604	288	14	...	906	...	...	3,520	3,588	7,108	288	5,457	1,363	100.0	4
470	163	8	...	641	...	...	4,390	4,813	9,203	295	6,507	2,401	100.0	3.2
357	199	10	...	566	...	...	3,643	3,653	7,296	269	5,072	1,955	100.0	3.6
393	149	17	...	559	...	...	5,172	4,796	9,968	540	6,777	2,651	100.0	5.4
354	108	5	1	468	...	...	5,021	4,183	9,204	716	6,300	2,188	100.0	7.7
321	144	9	...	474	...	...	4,356	4,278	8,634	457	5,915	2,262	100.0	5.2
289	95	6	...	390	...	...	3,627	3,522	7,149	387	4,830	1,932	100.0	5.4
406	185	15	1	607	...	...	5,710	5,906	11,616	388	10,390	838	100.0	3.3
226	71	10	...	307	...	...	4,414	3,814	8,228	174	7,358	696	100.0	2.1
315	121	8	1	445	...	...	7,412	5,961	13,373	424	12,171	778	100.0	3.1
434	84	1	...	519	...	...	3,387	7,032	10,419	661	5,157	4,601	100.0	6.3
457	262	13	...	732	...	...	3,774	2,592	6,366	221	5,084	1,061	100.0	3.4
547	341	21	...	909	...	...	3,523	3,523	7,046	271	5,118	1,657	100.0	3.8
511	298	22	...	831	...	...	4,223	4,276	8,499	301	5,769	2,429	100.0	3.5
363	172	9	...	544	...	...	3,145	3,492	6,637	220	5,070	1,347	100.0	3.3
515	176	15	...	706	...	...	5,099	5,351	10,450	275	8,302	1,873	100.0	2.6
566	166	4	...	736	...	...	4,636	4,821	9,457	267	6,785	2,405	100.0	2.8
329	106	...	...	435	...	...	2,861	2,850	5,711	237	4,364	1,110	100.0	4.1
225	51	...	...	276	...	...	2,919	2,723	5,642	259	4,047	1,336	100.0	4.5
291	67	2	...	360	...	...	2,232	2,660	4,892	229	3,868	795	100.0	4.6
390	95	2	...	487	...	...	2,419	2,997	5,416	253	4,351	812	100.0	4.6
496	216	2	...	714	...	...	2,480	2,571	5,051	239	3,545	1,267	100.0	4.7
133	215	...	...	348	...	...	1,884	2,018	3,902	243	2,799	860	100.0	6.2
779	334	17	...	1,130	...	58	7,211	6,886	14,097	1,140	8,102	4,855	95.1	8
423	218	12	...	653	...	...	5,471	5,234	10,705	907	6,003	3,795	100.0	8.5
505	260	19	1	785	...	...	7,811	4,736	12,547	806	6,271	5,470	100.0	6.4
235	81	...	...	316	...	...	4,401	4,607	9,008	733	6,756	1,519	100.0	8
308	110	9	...	427	...	...	5,513	5,688	11,201	932	7,908	2,361	100.0	8.3
564	228	27	...	819	...	...	6,334	5,094	11,428	939	7,417	3,072	100.0	3.2
316	131	5	...	452	...	...	5,446	6,637	12,083	812	9,267	2,004	100.0	6.8
351	120	15	...	486	...	...	5,694	6,232	11,976	1,016	9,100	1,860	100.0	8.4
405	162	7	...	574	...	...	2,241	1,941	4,182	292	3,020	870	100.0	7
245	118	10	...	373	...	...	4,116	2,240	6,356	506	3,982	1,868	100.0	7.
296	95	6	...	397	...	...	4,286	4,310	8,596	1,094	5,517	1,985	100.0	12.
508	149	5	1	663	...	...	2,664	2,942	5,606	721	3,921	964	100.0	12.
512	222	7	...	741	...	...	5,586	4,501	10,087	1,566	6,328	2,200	100.0	15.
434	170	15	...	619	...	...	4,735	4,065	8,800	562	6,166	2,072	100.0	6.4
457	252	35	...	744	...	...	4,712	4,249	8,961	611	6,522	1,828	100.0	6.8
678	222	10	...	910	...	...	5,959	6,943	12,902	580	8,955	3,367	100.0	4.5
397	146	...	...	543	...	...	5,334	5,647	10,981	395	9,676	910	100.0	3.5
514	166	...	...	680	...	...	5,093	5,782	10,875	458	9,637	780	100.0	4.2

VITAL STATISTICS.

Particulars of Vaccinations performed by Health Staff and Small-pox Eradication programme Staff in in each Division

Division No.	Name of the New Division	Total Number of persons vaccinated.			Total.			Primary
		Males.	Females.	Total.	Males.	Females.	Total.	
51	Shenoy Nagar	6,596	7,814	14,410	405	372	777	
52	Kilpauk	4,882	5,185	10,067	282	247	529	
53	Chetpet	5,884	6,236	12,120	331	326	657	
54	Nungambakkam	5,440	8,102	13,542	317	276	593	
55	Sevagram	6,432	8,306	14,738	306	323	629	
56	Thousand Lights (West)	6,993	11,011	18,004	355	319	674	
57	Thousand Lights (East)	4,452	5,024	9,476	309	291	600	
58	Pudupakkam	4,672	5,206	9,878	359	325	684	
59	Amir Mahal	6,109	5,710	11,819	387	381	768	
60	Royapettah	3,335	3,786	7,121	244	240	484	
61	Gangadeswarar Koil	5,047	5,704	10,751	209	201	410	
62	Dr. Ambedkar Nagar	7,450	7,531	14,981	262	262	524	
63	Periamet	6,702	7,283	13,985	314	285	599	
64	Park Town	5,485	5,776	11,261	278	250	528	
65	Adikesavapuram	4,270	4,966	9,236	357	435	792	
66	Chintadripet	4,840	4,719	9,559	322	332	654	
67	Egmore	7,695	6,782	14,477	321	331	652	
68	Pudupet	6,710	7,482	14,192	312	328	640	
69	Komaleeswaranpet	4,687	4,083	8,770	259	231	490	
70	Narasingapuram	5,261	4,878	10,139	294	338	632	
71	Nehru Nagar	5,722	4,538	10,260	429	451	880	
72	Thiruvatteeswaranpet	4,528	4,862	9,390	401	300	701	
73	Chepauk	5,290	4,583	9,873	292	244	536	
74	Marina	5,041	5,536	10,577	401	385	786	
75	Triplicane	3,744	4,114	7,858	295	255	550	
76	Jam Bazaar	3,279	4,629	7,908	393	383	776	
77	Mirsahibpet	3,303	3,476	6,779	391	309	700	
78	Azad Nagar	4,086	4,161	8,247	333	329	662	
79	Durgapuram	3,728	3,098	6,826	360	287	647	
80	Krishnampet	4,008	3,556	7,564	273	270	543	
81	Teynampet	4,586	5,917	10,503	338	329	667	
82	Vivekanandapuram	2,839	2,366	5,205	150	165	315	
83	Madava Perumalpuram	2,563	2,232	4,795	160	148	308	
84	Karniswarapuram	3,486	3,347	6,833	412	344	756	
85	Santhome	2,938	2,814	5,752	279	212	491	
86	Mylapore	3,317	2,795	6,112	232	202	434	
87	Bheemannahpet	4,029	6,129	10,158	384	364	748	
88	Alwarpet	5,042	6,220	11,262	392	324	716	
89	Raja Annamalaiapuram	3,418	3,744	7,162	388	396	784	
90	Adayar	3,132	2,815	5,947	191	145	336	
91	Aminjikarai	8,958	8,546	18,504	635	568	1,203	
92	Vadapalani	9,166	8,039	17,205	753	687	1,440	
93	Theagarayanagar	7,995	7,699	15,694	377	382	759	
94	Sathyamoorthi Nagar	3,170	2,866	6,036	315	298	613	
95	Rajaji Nagar	3,557	4,545	8,102	236	258	494	
96	Kamraj Nagar	7,006	8,026	15,032	457	415	872	
97	Saidapet (North)	5,860	5,490	11,350	311	269	580	
98	Periapet	6,683	6,257	12,940	628	573	1,201	
99	Guindy	8,149	6,834	14,983	407	365	772	
100	Saidapet (North)	7,832	8,867	16,699	490	405	895	
Total		5,04,564	5,29,754	10,34,318	33,005	31,401	64,406	

ing the year 1961.

Under one year.	Successful,						Re-vaccination,						Percentage of suc- cessful cases in which results were known.	
	One year and under five years.	Five years and under ten years.	Ten years and above.	Total.	Unsuccessful.	Unknown.	Total.			Results.				
							Males.	Females.	Total.	Successful.	Failure.	Absent.	Primary.	Re-vaccination.
542	222	12	1	777	..	...	6,191	7,442	13,633	761	9,631	3,241	100.0	5.5
384	134	10	1	529	..	...	4,600	4,938	(9,538	609	6,783	2,146	100.0	6.3
488	162	7	...	657	...	...	5,553	59,10	11,463	419	8,314	2,730	100.0	3.6
429	157	7	...	593	...	...	5,123	7,826	12,949	427	9,469	3,053	100.0	3.3
413	199	17	...	629	...	...	6,126	7,983	14,109	454	10,314	3,341	100.0	3.2
409	242	23	...	674	...	...	6,638	10,692	17,330	485	13,005	3,840	100.0	2.3
419	160	21	...	600	...	...	4,143	4,733	8,876	318	6,425	2,133	100.0	3.5
427	226	31	...	684	...	...	4,313	4,881	9,194	332	6,410	2,452	100.0	3.6
497	238	33	...	768	...	...	5,722	5,329	11,051	416	7,844	2,791	100.0	3.7
343	130	11	...	484	...	...	3,091	3,546	6,637	261	4,823	1,553	100.0	4.0
320	83	7	...	410	...	...	4,838	5,503	10,341	225	7,340	2,776	100.0	2.1
341	171	12	...	524	...	...	7,188	7,269	14,457	828	8,315	5,314	100.0	5.5
481	115	3	...	599	...	...	6,388	6,998	13,386	650	9,544	3,192	100.0	4.8
391	135	2	...	528	...	...	5,207	5,526	10,733	413	8,403	1,917	100.0	3.7
543	243	6	...	792	...	...	3,913	4,531	8,444	403	7,042	999	100.0	4.7
491	155	8	...	654	...	...	4,518	4,387	8,905	415	6,589	1,901	100.0	4.7
468	181	3	...	652	...	...	7,374	6,451	13,825	342	11,680	1,803	100.0	2.4
456	183	1	...	640	...	...	6,398	7,154	13,552	407	9,931	3,214	100.0	2.1
384	105	1	...	490	...	...	4,428	3,852	8,280	315	6,645	1,320	100.0	3.8
469	159	4	...	632	...	...	4,967	4,540	9,507	462	7,615	1,430	100.0	4.8
555	321	4	...	880	...	...	5,293	4,087	9,380	371	6,365	2,644	100.0	4.0
374	320	7	...	701	...	...	4,127	4,562	8,689	338	6,228	2,123	100.0	3.8
351	173	12	...	536	...	...	4,998	4,339	9,337	323	6,895	2,119	100.0	3.4
419	357	10	...	786	...	...	4,640	5,151	9,791	332	6,620	2,839	100.0	3.4
356	190	4	...	550	...	...	3,449	3,859	7,308	271	4,843	2,194	100.0	3.7
511	244	21	...	776	...	...	2,886	4,246	7,132	272	5,666	1,194	100.0	3.8
452	232	16	...	700	...	...	2,912	3,167	6,079	265	4,618	1,196	100.0	4.3
326	331	5	...	662	...	...	3,753	3,832	7,585	228	5,904	1,453	100.0	3.0
343	294	9	1	647	...	...	3,368	2,811	6,179	1,161	3,777	1,241	100.0	18.8
406	110	27	...	543	...	...	3,735	3,286	7,021	260	5,414	1,347	100.0	3.7
443	189	35	...	667	...	...	4,248	5,588	9,836	940	6,055	2,841	100.0	9.5
228	86	1	...	315	...	...	2,689	2,201	4,890	217	3,722	951	100.0	4.4
209	92	7	...	308	...	...	2,403	2,084	4,487	217	3,325	945	100.0	4.4
533	216	7	...	756	...	...	3,074	3,003	6,077	235	4,699	1,143	100.0	3.8
352	130	8	1	491	...	...	2,659	2,602	5,261	248	4,250	763	100.0	4.7
338	94	2	...	434	...	...	3,085	2,593	5,678	258	4,633	787	100.0	4.5
394	164	190	...	748	...	...	3,645	5,765	9,410	1,286	5,920	2,204	100.0	13.6
330	385	1	...	716	...	...	4,650	5,896	10,546	1,497	5,976	3,073	100.0	14.2
593	174	16	1	784	...	...	3,030	3,348	6,378	206	3,455	2,717	100.0	3.2
235	94	7	...	336	...	...	2,941	2,670	5,611	189	3,619	1,803	100.0	3.3
832	330	41	...	1,203	...	...	8,323	8,978	17,301	465	13,639	3,197	100.0	2.6
888	529	23	...	1,440	...	...	8,413	7,352	15,765	739	10,105	4,921	100.0	4.6
415	296	48	...	759	...	...	7,618	7,317	14,935	1,022	9,727	4,189	100.0	6.9
372	230	11	...	613	...	...	2,855	2,568	5,423	283	3,948	1,192	100.0	5.4
313	178	3	...	494	...	...	3,321	4,287	7,608	210	5,683	1,715	100.0	2.8
612	212	48	...	872	...	...	6,549	7,611	14,160	762	11,627	1,771	100.0	5.3
348	187	45	...	580	...	...	5,549	5,621	10,770	924	7,922	1,924	100.0	8.5
902	243	56	...	1,201	...	...	6,055	5,684	11,739	1,067	8,599	2,073	100.0	9.0
467	298	7	...	772	...	...	7,742	6,469	14,211	591	11,580	2,040	100.0	4.1
496	352	47	...	895	...	...	7,342	8,462	15,804	2,383	11,081	2,340	100.0	15.0
3,064	19,738	1,535	11	64,348	...	58	471,559	498,353	969,912	51,970	693,217	224,725	99.9	5.3

Comparative Statement of the Out-turn of Work in Dispensaries during 1960-61.

Serial No.	Division No.	Year of opening	Names of the Dispensaries.	Location.	Total Attendance.		New Cases.		Minor Operations.	System of Treatment.
					1960	1961	1960	1961		
1	2	1924	Royapuram	2/87, Suryanarayana Chetty Street, Royapuram.	71,242	67,042	36,854	34,963	400	Allopathic.
2	3	1952	Palmyrah Yard	Kalmandapam Road, Royapuram.	68,775	65,555	39,786	40,756	24	Do.
3	7	1944	Royapuram Siddha	109, Adam Sahib Street, Royapuram.	70,364	72,602	43,548	43,619	41	Siddha.
4	4	1957	Sanjeevirayanpet	21/22, Kappal Polu Chetty Street, Washermanpet.	59,682	50,459	27,774	24,844	40	Allopathic.
5	11	1956	Seven Wells	1/50, St. Xavier Street, Seven Wells, Madras-1.	83,568	79,654	39,980	37,690	135	Do.
6	14	1929	Harbour	6/7, Adam Street, Madras-1	59,213	54,651	32,776	30,714	38	Do.
7	15	1955	Muthialpet	2, Geils Street, Muthialpet, Madras-1.	80,166	74,969	40,695	36,694	...	Do.
8	19	1923	Mofus Khan Garden	55, Thatha Muthappan Street, Madras-1.	69,822	60,625	36,408	31,888	214	Do.
9	20	1938	Mannady	47, Linghi Chetty Street, Madras-1...	43,737	34,864	20,594	16,651	43	Do.
10	23	1913	Washermanpet	85, Thiruvethur High Road, Washermanpet., Madras-21.	89,846	94,729	51,644	56,144	47	Do.
11	25	1923	Mint	244, Mint Street, Madras-1	86,506	83,785	46,509	48,107	18	Do.
12	25	1957	Basin Bridge	51, Basin Bridge Road, Madras	78,391	64,353	39,510	31,331	15	Do.
13	28	1919	Trevelyn Basin	17, Basin Water Works Street, Madras-1.	61,170	76,300	31,967	38,791	64	Do.
14	31	1928	Perambur	55, Madhavaram High Road, Perambur.	71,210	76,532	41,041	42,906	106	Do.
15	32	1929	Vysarpady	22, Gantz Road, Vysarpady	65,821	62,191	33,671	32,341	...	Do.
16	33	1930	Pulianthope	55, Pulianthope High Road	40,239	1,06,130	8,697	62,259	185	Unani.
17	35	1958	Otteri Perambur Barracks.	Strahan Road, Otteri	95,039	84,565	54,705	49,357	...	Allopathic.
18	35	1931	Otteri Siddha	1-B, Bashiam Reddy 1st Street, Madras-12.	79,179	64,761	43,539	41,057	45	Siddha.
19	39	1931	Choolai Siddha	16, Alathur Subramania Achari Street, Madras.	1,09,616	1,16,961	69,513	76,367	85	Do.
20	40	1899	Blaiah Naidu	6, Rotler Street, Vepery	1,52,461	1,10,860	97,520	81,274	1,160	Allopathic.

21	41	1946	Sembiam	...	1/8-D, Papper Mills Road, Perambur.	60,275	51,896	30,333	26,930	181	Do.
22	44	1948	Aynavaram	...	127, Konnur High Road, Aynavaram.	91,805	79,556	52,541	50,512	23	Do.
23	46	1960	Nammalwarpet	...	21-A, Subbraya Chetty Street, 2nd Street.	29,614	1,04,906	13,895	47,526	123	Do.
24	48	1929	Kosapet	...	7/1, Chellapa Mudalia Street, Kosapet.	37,334	79,924	22,545	51,190	115	Do.
25	51	1956	Amjikai	...	171, Poonamallee High Road	61,735	54,162	34,266	40,965	182	Do.
26	53	1959	Chetput	...	24, Mc. Nichols Road, Chetput	58,147	59,130	38,152	39,697	39	Do.
27	55	1923	Nungambakkam	...	15, Noor Veerasamy Iyer Street, Nungambakkam.	70,225	71,784	44,082	43,220	141	Do.
28	56	1930	Thousand lights	...	43, Model School Road, Thousand Lights.	81,616	77,518	41,225	37,076	20	Ayurvedic.
29	59	1924	Pudupakkam	...	369, Pycrofts Road, Madras-14	60,561	63,583	36,407	30,896	15	Allopathic.
30	61	1919	Kilpauk	...	6, Gangadheeswarar Koil Street, Purasawalkam.	84,422	82,327	47,603	44,991	210	Do.
31	65	1909	Chintadripet	...	2/61, Arunachala Naicken Street,	1,09,522	84,540	46,252	48,959	22	Do.
32	67	1923	Egmore	...	34, Gengu Reddy Street, Egmore	60,950	65,671	38,401	32,326	67	Do.
33	69	1939	Pudupet	...	83, Harris Road, Pudupet	44,649	79,998	20,071	43,553	38	Do.
34	71	1932	Thiruvateeswaranpet	...	42, Tayar Sahib Street,	92,180	95,711	41,252	39,730	261	Unani.
35	72	1955	Chepauk	...	8, Khana Bagh Street	97,193	82,042	51,270	40,082	...	Allopathic.
36	75	1918	Triplicane	...	25, Pycrofts Road, Triplicane	69,643	62,527	35,800	29,531	26	Do.
37	77	1956	Zam Bazaar	...	21, Gazette Begam Street	78,401	90,106	31,855	36,492	21	Do.
38	80	1938	Krishnampet	...	25, Dr. Natesan Road	65,257	55,471	28,180	22,981	291	Do.
39	84	1959	Mylapore (North)	...	8, Karaneeswarar Pagoda Street	53,595	45,726	22,783	21,513	...	Do.
40	85	1924	Mylapore (South)	...	101, Kutcheri Road, Mylapore	64,074	78,135	27,941	33,943	96	Do.
41	86	1927	Teynampet	...	2/104, Mount Road, Madras	65,179	56,269	37,320	33,846	39	Do.
42	89	1948	Adayar	...	13, Greenway Road, Adayar	47,219	49,960	24,424	26,912	195	Do.
43	92	1948	Kodambakkam	...	107, Arcot Road, Kodambakkam...	33,763	31,186	22,980	22,351	8	Do.
44	93	1956	T. Nagar (North)	...	4, Dr. Sadasivam Road, T. Nagar.	43,451	37,850	22,950	21,391	58	Do.
45	94	1922	T. Nagar (South)	...	3, Sivagnam Road, T. Nagar	28,716	38,517	18,014	23,733	19	Do.
46	97	1956	Saidapet	...	51, Sadaippa Mudali Street, Saidapet	31,952	48,924	17,343	23,129	12	Do.
47	99	1957	Guindy	...	1-A, Sathani Street, Maduvankari...	33,192	39,623	10,190	10,309	...	Do.
48	48	1961	Kosapet (New) (opened... in September 1961)	...	Sachidanandam Street, Kosapet ... (New)	...	...	...	...	...	Do.

MEDICAL INSPECTION

Serial No.	Defects.	Boys.						Girls.											
		Entrants			Regulars.			Total No. of entrants and regulars			Entrants			Regulars			Total No. of entrants and regulars		
		No Defective	Percentage		No Defective	Percentage		No Defective	Percentage		No Defective	Percentage		No Defective	Percentage		No Defective	Percentage	
			1961	1960		1961	1960		1961	1960		1961	1960		1961	1960		1961	1960
1	Malnutrition	249	6.66	7.11	452	7.69	8.03	691	7.21	588	12.3	12.47	1,192	17.42	16.73	1,786	16.44		
2	Disty Head and Body and Nails.	99	2.701	1.43	345	5.87	1.64	444	4.64	20	0.50	0.509	0.25	0.389	37	0.34			
3	Teeth and Mouth	542	14.77	7.50	1,177	19.00	10.59	1,719	17.90	457	11.5	13.46	939	13.59	16.33	1,396	12.90		
4	Nose and throat	176	4.76	3.68	221	3.76	4.71	397	4.15	330	8.28	10.46	616	9.00	10.75	946	8.74		
5	Eye Disease	137	3.70	3.01	256	4.35	3.08	393	4.15	261	6.56	5.65	282	4.12	6.55	543	5.03		
6	7Vision	22	0.59	0.07	29	4.93	1.29	51	0.3	24	0.60	0.339	71	1.04	0.916	95	0.87		
7	Ear Diseases	52	1.40	0.239	99	1.68	0.164	151	1.58	27	0.68	0.582	39	0.57	0.571	66	0.61		
8	Hearing	10	0.27	0.079	9	0.153	0.032	19	0.19	2	0.05	0.028	5	0.07	0.163	7	0.063		
9	Speech	2	0.059	...	...	...	0.0922	2	0.02	2	0.05	...	3	0.04	...	5	0.046
10	Circulatory system	92	2.49	0.531	222	3.76	1.64	314	3.28	77	1.76	2.40	116	1.69	1.93	193	1.89		
11	Tuberculosis	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
12	Respiratory system	19	0.51	0.018	17	0.289	0.032	36	0.376	76	6.93	1.27	98	1.43	1.53	174	1.68		
13	Abdonimal system	10	0.27	0.008	10	0.170	0.032	20	0.20	3	0.075	0.141	10	0.14	0.122	13	0.11		
14	Bones and Joints	99	2.701	2.65	282	4.79	4.59	381	3.99	55	1.13	0.191	67	0.99	1.326	122	0.11		
15	Nervous and psychic systems.	4	1.18	0.025	10	0.170	...	14	0.15	8	0.02	0.113	14	0.204	0.061	22	0.02		
16	Infection and Contagious diseases.	152	4.11	5.31	415	7.06	5.23	567	5.91	333	8.28	8.173	503	7.36	7.653	836	7.73		
17	Other diseases and defects.	114	3.08	0.149	411	7.06	2.08	525	5.49	115	2.89	2.712	279	4.10	4.244	394	3.46		
18	Vaccination	22	0.59	...	62	1.05	...	84	0.87	...	...	...	...	...	...	...	...
19	Deformities	21	0.57	0.079	41	0.706	0.328	62	0.64	13	0.33	0.622	28	0.41	0.632	41	0.38		

MEDICAL INSPECTION.

Groups.	No. on Roll		Average Daily Attendance		Number Examined		Number Defective.		Percentage.	
	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.
Entrants. ...	6,245	4,827	5,371	4,024	3,697	3,983	1,758	1,978	44	50
Regulars. ...	8,237	9,427	7,241	8,648	5,878	6,838	4,270	3,579	72	52
Total ...	14,477	14,254	12,612	12,672	9,575	10,821	6,028	5,557	62	51

TREATMENT TABLE.

Sex	Number treated at school.	Number sent to Corporation Dispensaries.	No referred to Government Hospitals.	Number referred to Government Opthalmic Hospital.	No. referred to Government Tuberculosis Hospital.	Number of Parents net.	No. of revisits paid to schools.	No. of re-examination of School Children.
Boys. ...	1,700	450	278	405	...	1,162	90	5,474
Girls ...	2,251	402	252	531	...	1,342	80	4,860
Total ...	3,951	852	530	936	...	2,504	170	10,334

MEDICAL INSPECTION

HEIGHT AND WEIGHT TABLE.

Age.	Average Height in inches.		Average Weight in pounds.		Quinquennial Average Height in inches.		Quinquennial Average Weight in pounds.	
	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys	Girls.
6	38.123	39.230	32.140	31.313	29.845	39.672	31.101	33.408
7	39.610	40.542	35.231	35.130	40.218	41.845	35.107	35.701
8	41.420	42.143	37.643	38.732	41.357	43.122	35.364	37.122
9	43.960	45.102	42.105	42.213	45.125	45.542	41.281	41.094
10	45.728	47.921	45.112	47.303	46.912	48.582	45.706	45.112
11	48.342	51.434	47.105	53.247	48.527	49.512	49.812	49.218
12	50.145	51.873	51.543	56.342	51.453	51.945	51.818	52.446
13	52.112	52.876	53.314	61.170	52.431	53.806	55.145	58.121
14	52.873	56.986	69.023	55.157	54.231	55.821	60.628	63.411
15	54.915	58.128	63.541	80.112	56.814	87.575	66.145	70.102
16	56.032	62.431	63.712	90.213	57.342	59.135	70.141	79.491
17	57.031	62.958	70.218	91.182	58.634	62.135	78.531	84.247
18	60.532	...	82.421	...	60.845	...	83.652	...

Nature of sample.	1961		1956		1957		1958		1959		1960	
	Number of samples analysed.	Number of adulterated samples.	Number of samples analysed.	Percentage of adulterated samples.	Number of samples analysed.	Percentage of adulterated samples.	Number of samples analysed.	Percentage of adulterated samples.	Number of samples analysed.	Percentage of adulterated samples.	Number of samples analysed.	Percentage of adulterated samples.
Milk	3,793	1,460	3,251	42.1	3,554	44.5	4,597	41.6	4,496	42.2	4,642	43.2
Butter	553	65	432	24.8	497	18.9	555	17.1	567	16.2	583	16.5
Ghee	672	46	627	10.4	725	5.0	918	5.3	854	7.7	892	8.6
Gingelly Oil	588	72	395	21.5	751	30.8	1,319	14.7	1,140	9.3	1,143	8.7
Groundnut Oil	169	14	39	2.6	73	12.3	154	10.4	109	4.6	143	16.8
Cocoanut Oil	354	5	139	1.4	101	...	209	5.3	273	2.9	385	2.6
Coffee Powder	265	18	187	24.6	245	10.6	322	11.8	452	8.0	286	7.7
Tea	71	6	77	16.9	98	2.0	73	15.1	63	7.9	102	5.9
Ghee Substitutes	90	...	4	...	12	16.7	2	100.0	3	33.3	4	25.0
Other Articles	208	65	119	28.6	134	22.4	153	21.6	166	26.8	197	33.5
Total...	7,163	1,751	5,270	32.7	6,190	32.5	8,302	28.5	8,123	27.8	8,377	28.7

FOOD ANALYSIS.

STATEMENT No. II.

Nature of samples.	Adulterated samples among the samples analysed in 1961						Adulterated samples of the previous years pending disposal on 1-1-1961						Total number of adulterated samples dealt with during 1960						Average fine per conviction in 1961.	Number of conviction in 1960	Total fines imposed in 1960.	Average fine per conviction in 1960.
	Number of samples.	Number of convictions.	Number of articles seized and forfeited or destroyed without prosecution.	Number acquitted, dismissed, warned, admonished or withdrawn.	Number not prosecuted.	Number pending disposal on 31st December, 1961.	Number of samples.	Number of convictions.	Number of articles seized and forfeited or destroyed without prosecution.	Number acquitted, dismissed, warned, admonished or withdrawn.	Number not prosecuted.	Number pending disposal on 31st December, 1961.	Number of samples.	Number of convictions.	Number of articles seized and forfeited or destroyed without prosecution.	Number acquitted, dismissed, warned, admonished or withdrawn.	Number not prosecuted.	Number pending disposal on 31st December, 1961.				
Milk	1,460	*1 314	...	5	69	1,072	3,816	*2 560	...	18	...	3,238	5,276	874	...	23	69	4,310	Rs. 69,216	Rs. 918	43,500	47
Butter	65	19	...	...	14	32	134	30	...	5	...	99	199	49	...	5	14	131	4,773	53	2,705	51
Ghee	46	3	...	...	1	42	206	33	...	...	...	173	252	36	...	...	1	215	3,191	34	2,350	69
Gingelly Oil...	72	33	...	...	5	34	139	37	...	2	...	100	211	70	...	2	5	134	6,170	53	2,595	49
Groundnut Oil	14	2	...	1	3	8	18	7	...	2	...	9	32	9	...	3	3	17	480	8	330	41
Cocoanut Oil	5	2	...	1	...	2	7	3	...	...	...	4	12	5	...	1	...	6	525	6	260	43
Coffee Powder	18	3	...	...	4	11	51	9	...	...	...	42	69	12	...	...	4	53	1,255	16	1,165	73
Tea	6	...	...	...	...	6	14	2	1	...	...	11	20	2	1	...	...	17	100	2	30	15
Ghee substitutes	...	...	...	...	...	...	6	...	...	...	...	6	6	...	...	...	...	6	...	...	...	...
Other Articles	65*	13	1	...	7	44	70	38	...	1	...	31	135	51	1	1	7	75	2,630	41	1,620	40
Total ...	1,751	*1 389	1	7	103	1,251	4,461	*2 719	1	28	...	3,713	6,212	1,108	2	35	103	4,964	88,340	80	54,555	48

*65 = Thoor Dhall - 33;

Turneric - 13.

Honey - 6.

Chilli Powder

6;

Aroowroot - 4.

Maida - 2.

Kesari Powder-1.

The number of Samples of Water tested for Bacteriological and Chemical Character in 1961.

Serial No.	Description of Samples.	Number of Samples
1	From the sources of the Kortalayar River System ...	33
2	From the Head Works at Kipauk Water Works ...	1,719
3	From the Infiltration Gallery Wells at Sembiam ...	9
4	From the Infiltration Gallery Wells at Saidapet ...	10
5	From the Kortalayar distribution system ...	762
6	From the Sembiam distribution system ...	86
7	From the Saidapet distribution system ...	62
8	From the Shallow Wells at Adayar, Kodambakkam, Guindy, Triplicane, Marina and North Madras ...	159
9	Private samples ...	139
10	Sewage and Sewage effluents ...	7
11	From the Water Mains under sterilisation ...	240
12	Microscopical examination ...	110
Total ...		3,336

WATER ANALYSIS

STATEMENT No. II

Monthly average levels in the three Reservoirs and the total monthly rainfall recorded in their catchments in 1961.

Months 1961	Sathyamoorthy Sagar (Poondy Reservoir)		Sholavaram Reservoir		Red Hills Reservoir	
	Average lake level in feet	Total rainfall recorded in the region	Average lake level in feet	Total rainfall recorded in the region	Average lake level in feet	Total rainfall recorded in the region
		(M.M.)		(M.M.)		(M.M.)
January ...	137.88	31.75	61.83	34.80	45.69	39.37
February ...	137.08	34.80	61.91	13.97	45.78	7.62
March ...	135.88	...	60.92	...	45.45	...
April ...	133.80	...	59.81	...	44.02	...
May ...	135.88	102.95	59.34	76.20	43.35	8.89
June	130.93	77.19	58.79	66.11	43.33	50.80
July ...	128.92	211.59	57.49	141.74	43.96	112.27
August	128.84	327.60	55.01	187.83	43.96	188.21
September	134.53	82.91	56.75	55.88	44.53	35.56
October ...	134.01	211.23	58.31	141.99	44.83	128.78
November ...	134.31	147.83	58.44	183.47	45.05	176.79
December ...	134.59	2.50	59.33	...	44.14	11.43
Total ...	/	1,230.35		901.99		759.72

Description.	31_1_61	23_2_61	25_3_61	29_4_61	30_5_61	30_6_61	25_8_61	27_9_61	28_10_61	25_11_61	30_12_61
183											
<i>A. Physical conditions:</i>											
Time	1-00 P.M.	12-00 Noon	3-00 P.M.	12-30 P.M.	2-30 P.M.	3-00 P.M.	11-30 A.M.	1-00 P.M.	1-00 P.M.	4-30 P.M.	12-30 P.M.
Depth in feet (above mean sea-level)	137.6	136.8	...	...	130.90	129.92	131.30	134.02	1	134.06	1343.37
Colour	S.Y.	S.Y.	S.Y.	S.Y.	Y.G.	G.Y.	Y.W.	S.Y.	Y.W.	S.Y.	W
Temperature (°C)	29.5	29.5	32.5	35	29.5	28.3	30.5	28.4	33.5	26.2	24.5
Turbidity (p.p.m.) Silica scale	26.5	21.5	24.5	20.0	20.0	46.5	74.0	56.0	31.5	33.0	28.0
<i>B. Chemical conditions:</i>											
Total solids	21.6	25.6	20.8	22.0	22.8	32.0	27.6	26.0	29.6	30.2	31.6
Total hardness	9.6	8.6	8.0	7.0	7.2	5.6	7.0	9.0	8.8	9.6	8.0
Calcium hardness	4.6	4.0	3.2	2.4	2.4	2.0	3.6	5.0	3.2	4.0	3.4
Magnesium hardness	5.0	4.6	4.8	4.6	4.8	3.6	3.4	4.0	5.6	5.6	4.6
Chlorides	2.7	2.9	3.2	3.6	4.0	4.3	4.0	3.6	3.8	4.1	4.5
Ammoniacal Nitrogen	0.003	...	0.002	0.002	0.003	0.060	0.003	0.016	0.016	0.019	0.008
Albuminoid Nitrogen	0.048	0.048	0.048	0.040	0.064	0.120	0.072	0.040	0.048	0.048	0.040
Nitrous Nitrogen	Tr.	Tr.	...	...	...	...	Tr.	...	...	...	...
Nitric Nitrogen	...	...	...	...	...	...	...	...	...	...	...
Oxygen absorbed (Tidy's)	0.170	0.235	0.170	0.190	0.295	0.376	0.312	0.424	0.304	0.202	0.273
Alkalinity to Phenolphthalein	0.9	0.5	1.8	3.0	2.8	2.6	1.0	0.5	0.5	1.5	1.5
Alkalinity to Methyl orange	15.4	14.8	14.2	14.7	14.8	14.5	14.0	16.5	17.5	18.6	17.8
Phosphates	0.001	Tr.	0.001	...	0.001	...	0.001	...	0.001	...	...
Silicates	3.2	3.2	2.4	2.4	3.2	2.4	4.0	4.0	2.0	1.6	1.2
Sulphate	1.9	1.7	3.3	2.0	0.8	1.2	1.1	0.9	1.0	0.9	0.9
Iron	0.02	0.01	Tr.	Tr.	0.08	0.005	0.06	0.02	0.01	0.015	0.02
pH.	8.7	8.7	8.9	8.6	9.1	9.1	8.9	8.5	8.4	8.9	8.9
Specific conductivity at 25°C (Micromhos/cm)	335	320	315	315	310	340	375	370	410	430	450
Dissolved Oxygen (c.c./l.)	6.02	5.53	5.6	5.18	6.23	6.16	6.23	5.7	5.77	6.16	7.0
<i>C. Bacteriological conditions:</i>											
B. Coli present in 1 c.w	...	...	...	...	...	...	...	...	...	...	...
many c.c. and upwards	20 c.c.	5 c.c.	10 c.c.	20.0 c.c.	5 c.c.	20 c.c.	1.0 c.c.	5 c.c.	—60 c.c.	—60 c.c.	20 c.c.

W = Whitish.

S.Y. = Slightly yellowish.

Y = Yellowish.

G. = Greenish.

Tr. = Trace.

Limnological conditions of the sources of the City Water Supply (b) Sholavaram Reservoir in 1961.
(Results expressed in parts per 100,000)

Description.	31-1-61	23-2-61	25-3-61	29-4-61	30-5-61	30-6-61	25-8-61	27-9-61	28-10-61	25-11-61	33-12-61
<i>A. Physical conditions :</i>											
Time	10-15	10-30	11-00	11-00	12-45	1-30	10-15	11-00	10-00	1-30	10-00
Depth in feet (above mean sea-level)	A.M.	A.M.	A.M.	A.M.	P.M.	P.M.	A.M.	A.M.	A.M.	P.M.	A.M.
Colour	62.04	61.89	61.00	...	59.4	56.66	54.84	58.59	...	58.84	58.91
Temperature (°C)	Y.G.	S.Y.	S.Y.	W.	W.	Y.W.	W.	Y.W.	S.Y.	W.	W.
Turbidity (p.p.m)	27	28	29.8	30	29.5	27.5	28.5	28	30	27	24.5
Silica scale	24.5	18.5	26.5	41.0	62.0	96.0	70.6	62.0	33.5	42.0	26.0
<i>B. Chemical conditions :</i>											
Total Solids	23.2	28.0	22.8	26.2	23.8	32.0	26.8	26.8	28.6	26.0	30.8
Total Hardness	10.8	10.8	10.4	10.0	7.6	8.4	8.4	8.8	8.6	8.6	8.6
Calcium Hardness	6.0	5.6	3.4	5.2	4.0	4.2	4.8	5.0	5.2	4.2	4.2
Magnesium Hardness	4.8	5.2	7.0	4.8	3.6	4.2	3.6	3.8	3.4	4.4	4.4
Chlorides	3.0	3.1	3.6	3.8	4.1	4.6	3.9	3.6	4.2	3.9	4.7
Ammoniacal Nitrogen	...	0.002	...	0.002	0.002	0.040	0.003	0.002	0.013	0.004	0.002
Albuminoid Nitrogen	0.040	0.022	0.040	0.040	0.048	0.040	0.056	0.040	0.040	0.048	0.040
Nitrous Nitrogen	...	...	...	Tr.	Tr.	...	Tr.	...	Tr.	Tr.	...
Nitric Nitrogen	...	...	...	...	Tr.	...	...	...	...	...	...
Oxygen absorbed (Tidy's)	0.107	0.124	0.158	0.152	0.201	0.300	0.217	0.120	0.192	0.168	0.236
Alkalinity to Phenolphthaleine...	0.6	0.4	1.5	0.7	1.1	1.0	0.5	0.3	0.3	0.8	0.8
Alkalinity to Methyl Orange	15.2	13.6	14.0	14.7	15.2	15.8	12.5	14.5	14.3	12.7	14.2
Phosphates	0.001	Tr.	0.001	...	0.001	0.001	0.001	...	0.001	...	...
Silicates	3.2	3.2	3.2	3.2	3.2	2.0	4.0	3.2	1.6	1.2	1.2
Sulphate	2.0	2.5	5.4	3.9	1.8	2.3	1.9	1.7	1.7	1.8	1.8
Iron	0.02	0.01	0.015	0.02	0.08	0.04	0.06	0.025	0.01	0.02	0.025
pH.	8.5	8.5	8.3	8.4	8.4	8.5	8.3	8.3	8.4	8.5	8.5
Specific conductivity at 25°C (micromhos/cm.)	340	360	360	370	345	385	365	370	390	370	440
Dissolved oxygen (c.c./l)	5.95	5.53	4.76	4.20	4.76	5.53	5.67	5.39	5.53	5.6	5.81
<i>C. Bacteriological conditions :</i>											
B. Coli present in how many c.c. and upwards	20 c.c.	20 c.c.	20 c.c.	60.0 c.c.	60.0 c.c.	1.0 c.c.	1.0 c.c.	1.0 c.c.	5 c.c.	5 c.c.	60 c.c.

Description.		31-1-61	23-2-61	25-3-61	29-4-61	30-5-61	30-6-61	25-8-61	27-9-61	28-10-61	25-11-61	30-12-61
<i>A. Physical conditions:</i>												
Time ...	...	9-15 A.M. 45.86 S.Y.	10-00 A.M. 45.74 S.Y.	10-00 A.M. 45.17 S.Y.	10-00 A.M. ... S.Y.	12-00 NOON. 43.91 S.Y.	12-30 P.M. 43.23 S.Y.	9-30 A.M. 44.08 Y	10-00 A.M. 44.92 Y	9-30 A.M. ... S.Y.	12-00 NOON. 45.10 S.Y.	9-00 A.M. 43.50 W
Depth in feet (above mean sea-level)...	...	26.5	27	30.3	31.0	29.5	27.5	29.0	28.3	30.1	27	24.5
Colour ...	...	21.5	17.5	19.5	20.0	16.0	15.5	20.0	18.5	16.5	18.5	16.5
Temperature (°C) ...	...										
Turbidity (p.p.m.) Silica scale...	...											
<i>B. Chemical conditions:</i>												
Total solids ...	...	20.0	18.4	20.0	19.6	20.6	21.6	22.0	25.6	24.8	25.0	26.8
Total hardness ...	...	7.0	7.2	7.6	8.0	8.4	8.6	7.4	8.4	8.0	7.8	7.8
Calcium hardness ...	...	4.4	4.4	4.4	4.0	4.2	4.6	4.0	4.2	4.0	3.8	4.0
Magnesium hardness ...	...	2.6	2.8	3.2	4.0	4.2	4.0	3.4	4.2	4.0	4.0	3.8
Chlorides ...	...	2.0	2.0	2.3	2.8	3.3	3.5	3.6	4.0	3.9	3.8	3.9
Ammoniacal Nitrogen ...	...	...	...	0.002	0.002	0.002	0.020	0.002	0.016	0.013	0.019	0.004
Albuminoid Nitrogen ...	...	0.048	0.048	0.048	0.056	0.056	0.020	0.064	0.048	0.048	0.064	0.040
Nitrous Nitrogen ...	...	...	...	...	...	Tr.	...	Tr.	...	Tr.	...	...
Nitric Nitrogen ...	...	...	...	...	...	...	...	...	...	...	...	...
Oxygen absorbed (Tidy's) ...	...	0.149	0.141	0.212	0.184	0.205	0.247	0.337	0.222	0.229	0.195	0.289
Alkalinity to Phenolphthalein ...	...	0.6	0.3	0.7	0.6	1.1	1.0	0.8	0.8	0.5	0.8	0.4
Alkalinity to Methyl Orange ...	...	12.6	8.8	9.4	9.8	11.8	12.1	11.3	12.5	12.6	11.2	12.2
Phosphates ...	...	0.001	Tr.	0.001	...	0.001	0.001	0.001	...	0.001	...	...
Silicates ...	...	2.4	2.4	2.4	2.4	3.2	2.0	4.0	3.2	1.2	1.2	1.2
Sulphate ...	...	1.0	1.1	3.0	3.4	2.4	2.4	2.1	2.0	2.0	2.4	2.0
Iron ...	...	0.01	Tr.	Tr.	Tr.	0.01	0.005	Tr.	...	Tr.	Tr.	Tr.
pH. ...	...	8.8	8.5	8.5	8.3	8.4	8.5	8.5	8.7	8.4	8.7	8.3
Specific conductivity at 25°C (micro mhos/c.m.)	...	235	240	250	270	295	310	310	360	350	350	375
Dissolved oxygen (c.c./l)	...	6.23	5.46	5.25	4.34	5.11	5.32	5.32	5.39	5.11	5.6	5.74
<i>C. Bacteriological conditions:</i>												
B. Coli present in how many c.c. and upwards ...	...	20 c.c.	20 c.c.	20 c.c.	10 c.c.	10 c.c.	10 c.c.	1-0 c.c.	20 c.c.	5 c.c.	5 c.c.	20 c.c.

WATER ANALYSIS

STATEMENT No. VI

Some important Physical, Chemical and Bacteriological results of Chlorinated Raw water in 1961
(Results expressed in parts per 100,000)

Months 1961	No. of samples	Colour	Turbidity(p.p.m.)	Total solids	Total hardness	Chlorides	Ammoniacal Nitrogen	Albuminoid Nitrogen	Nitrites	Nitrates	Oxy. Absorbed (Tidy)	Alkalinity to		pH	Iron	Phosphates	Silicates	Sp. Conductivity (Micro mhos/cm.)	% of samples showing absence of Coliforms in 60 c.c.
												P.T.H.	M. O.						
January	23	Sl. W.	19.2	17.4	6.3	1.9	...	0.038	...	...	0.125	0.2	7.2	8.2	Tr.	0.001	2.6	220	61
February	21	Sl. W.	17.8	17.0	7.2	2.1	...	0.044	...	...	0.128	0.4	8.2	8.2	Tr.	0.001	2.4	245	38
March	23	S.l W.	15.4	19.2	7.6	2.4	...	0.042	Tr.	...	0.128	0.4	9.0	8.3	Tr.	0.001	2.4	260	52
April	23	Sl. W.	17.8	19.2	7.9	2.6	0.002	0.048	...	...	0.165	0.5	9.8	8.3	Tr.	0.001	2.4	260	18
May	20	W	18.5	18.6	8.3	3.0	0.002	0.051	...	...	0.168	0.7	10.8	8.3	Tr.	0.001	2.6	275	20
June	24	W	18.8	21.7	8.5	3.2	0.002	0.077	...	...	0.149	0.9	11.6	8.4	Tr.	0.001	2.6	300	4
July	25	W	16.9	21.6	8.3	3.5	0.002	0.064	Tr.	...	0.186	0.8	11.8	8.5	Tr.	0.001	2.8	310	4
August	24	W	15.0	23.2	8.0	3.6	0.003	0.057	Tr.	...	0.160	0.7	11.8	8.4	Tr.	0.001	3.4	310	25
September	24	W	16.2	24.6	7.9	3.7	0.004	0.046	...	...	0.160	0.7	11.8	8.5	Tr.	...	3.4	325	13
October	22	W	15.0	24.2	8.0	3.8	0.002	0.055	Tr.	...	0.163	0.6	12.0	8.4	Tr.	...	1.2	335	9
November	24	W	15.4	24.0	7.8	3.7	0.002	0.047	...	...	0.141	0.7	11.6	8.4	Tr.	...	1.4	340	4
December	24	W	16.2	25.2	8.1	4.0	0.002	0.044	...	...	0.169	1.0	11.9	8.5	...	...	1.9	350	21

WATER ANALYSIS.

Some important Physical, Chemical and Bacteriological Results of filtrates from slow sand filters in 1961.
(Results expressed in parts per 100,000)

Nonths 1961	No. of samples.	Colour.	Turbidity (p.p.m.)	Total solids.	Total hardness.	Chlorides.	Ammoniacal Nitrogen.	Albuminoid nitrogen.	Nitrite.	Nitrate.	Oxygen Absorbed (Tidy).	Alkalinity to		pH.	Iron	Phosphates.	Silicates.	Sp. Conductivity. (Micromhos(c.m.)	% of samples showing absence of Coliforms in 60 c.c.
												Phenolph-thalein.	Methyl orange.						
January ...	23	C. & C.	5.6	...	6.3	1.9	...	0.038	Tr.	Tr.	0.094	-0.5	7.0	7.5	Tr.	0.001	2.8	220	4
February ...	21	C. & C.	7.8	...	7.2	2.2	...	0.044	Tr.	Tr.	0.103	-0.2	8.2	7.9	Tr.	0.001	2.4	245	5
March ...	23	C. & C.	5.9	...	7.4	2.4	...	0.042	Pr'	Tr.	0.105	-0.3	9.0	7.6	Tr.	0.001	2.4	260	0
April ...	23	C. & C.	5.2	...	7.7	2.6	0.003	0.042	Pr.	...	0.134	-0.2	9.9	7.7	Tr.	0.001	2.4	260	4
May ...	20	C. & C.	6.1	...	8.3	2.9	0.024	0.044	Pr.	...	0.142	-0.3	10.8	7.7	Tr.	0.001	2.6	275	0
June ...	24	C. & C.	7.1	...	8.6	3.2	0.014	0.069	Tr.	...	0.133	-0.5	11.2	8.0	Tr.	0.001	2.6	310	4
July ...	25	C. & C.	6.4	...	8.3	3.5	0.009	0.062	Tr.	...	0.156	...	11.4	8.0	Tr.	0.001	2.8	310	8
August ...	24	C. & C.	5.5	23.6	8.1	3.6	0.011	0.044	...	...	0.138	...	11.7	8.1	Tr.	0.001	3.4	310	4
September...	24	C. & C.	7.2	23.7	7.8	3.7	0.003	0.044	Tr.	...	0.152	...	11.4	8.2	Tr.	...	3.4	325	0
October ...	22	C. & C.	5.4	23.8	8.0	3.8	0.008	0.048	Tr.	...	0.150	...	12.0	8.1	Tr.	...	1.2	335	4
November...	24	C. & C.	6.9	24.4	8.0	3.8	0.014	0.043	Tr.	...	0.120	...	11.4	8.1	Tr.	...	1.4	340	12
December ...	24	C. & C.	6.3	24.4	8.2	3.8	0.013	0.040	...	...	0.155	...	11.4	8.0	...	...	1.9	350	12

WATER ANALYSIS

STATEMENT No. VIII.

Some important physical, chemical and Bacteriological Results of Filtrates from gravity Mechanical Filters in 1961.
(Results expressed in parts per 100,000)

Moths 1961	No. of samples	Colour	Turbidity(p.p.m)	Total solids	Total hardness	Chlorides	Ammoniacal Nitrogen	Albuminoid Nitrogen	Nitrites	Nitrates	Oxy. Absorbed (Tidy)	Alkalinity to		PH	Iron	Phosphates	Silicates	Sp. Conductivity (Micromhos/cm.)	% of samples showing absence of Coliforms in 60 c.c.
												P.T.H.	M. O.						
January	23	C. & C.	3.9	16.8	6.6	2.1	...	0.034	...	Tr.	0.050	-1.4	5.2	7.0	Tr.	0.001	3.0	235	91
February	21	C. & C.	3.2	19.0	7.3	2.3	...	0.030	...	...	0.046	-0.8	5.9	6.9	Tr.	0.001	2.4	260	71
March	23	C. & C.	3.1	20.0	7.4	2.6	...	0.028	...	...	0.066	-0.9	6.7	7.0	Tr.	0.001	2.4	260	48
April	23	C. & C.	4.2	21.6	7.8	2.8	0.002	0.042	Tr.	...	0.070	-0.8	7.7	7.2	Tr.	0.001	2.4	270	50
May	20	C. & C.	3.9	18.6	8.2	3.1	0.002	0.044	...	...	0.079	-1.2	7.8	7.0	0.015	0.001	2.6	290	45
June	24	C. & C.	5.6	21.5	8.7	3.5	0.002	0.072	Tr.	...	0.070	-0.9	9.7	7.3	0.030	0.001	2.6	320	50
July	25	C. & C.	5.0	22.2	9.0	3.7	0.002	0.058	Tr.	...	0.108	...	10.7	7.8	0.010	0.001	3.0	335	60
August	24	C. & C.	3.5	24.3	9.2	3.9	0.004	0.040	...	...	0.075	-0.5	9.8	7.5	Tr.	0.002	3.2	345	79
September	24	C. & C.	4.3	25.2	8.3	3.9	0.002	0.040	...	...	0.078	-0.7	9.3	7.3	Tr.	0.001	3.4	345	63
October	22	C. & C.	3.6	25.1	8.5	4.0	...	0.040	...	...	0.087	-0.9	9.4	7.1	Tr.	...	1.2	360	41
November	24	C. & C.	4.1	25.2	8.5	3.9	0.002	0.040	...	...	0.057	-0.8	9.4	7.4	Tr.	0.001	1.4	365	38
December	24	C. & C.	4.0	25.0	8.1	4.0	0.002	0.040	...	...	0.096	-1.2	8.7	7.1	...	...	1.9	365	21

Some important Physical, Chemical and Bacteriological Results of the Test Tap samples collected from the Test Tap at the Kilpauk Pumping Station in 1961.

(Results expressed in parts per 100,000.)

Months 1961	No. of samples.	Colour.	Turbidity (p.p.m.)	Total solids.	Total hardness.	Chlorides.	Ammoniacal Nitrogen.	Albuminoid Nitrogen.	Nitrites.	Nitrates.	Oxygen Absorbed (Tidy)	Alkalinity to		pH.	Iron.	Phosphates.	Silicates.	Sp. Conductivity (Micromhos/c.m.)	% of samples showing ab- sence of Coli- forms 60 c.c.	
												Phenolph- thaline.	Methyl orange.						11-00 a.m.	4-00 p.m.
January	44	C. & C.	5.7	17.0	6.4	2.0	...	0.034	...	...	0.075	-0.7	6.0	7.3	Tr.	0.001	2.8	230	95	100
February	41	C. & C.	7.0	18.6	7.2	2.3	...	0.040	...	Tr.	0.088	-0.3	7.6	7.5	Tr.	0.001	2.4	245	81	70
March	43	C. & C.	5.0	19.0	7.4	2.5	...	0.042	Tr.	...	0.077	-0.4	8.1	7.4	Tr.	0.001	2.4	270	95	90
April	45	C. & C.	5.8	21.8	8.0	2.7	0.002	0.042	Tr.	...	0.096	-0.4	9.0	7.5	Tr.	0.001	2.4	265	65	50
May	47	C. & C.	4.8	19.2	8.1	3.1	0.006	0.040	...	...	0.105	-0.7	9.6	7.3	0.005	0.001	2.4	280	75	78
June	47	C. & C.	6.0	21.1	8.4	3.3	0.006	0.070	Tr.	...	0.087	-0.4	10.8	7.6	0.020	0.001	2.6	310	88	87
July	49	C. & C.	5.0	21.6	8.6	3.6	0.020	0.064	Tr.	...	0.120	...	11.3	7.7	Tr.	0.001	2.8	315	100	100
August	47	C. & C.	4.9	22.8	8.4	3.7	0.008	0.042	Tr.	...	0.105	-0.3	11.0	7.6	Tr.	0.001	3.4	315	92	91
September	48	C. & C.	4.5	24.0	8.1	3.8	0.003	0.042	...	...	0.097	-0.5	10.9	7.7	Tr.	...	3.4	335	96	96
October	43	C. & C.	4.6	24.8	8.1	3.9	0.003	0.045	Tr.	...	0.106	-0.4	10.9	7.7	Tr.	...	1.2	345	96	100
November	48	C. & C.	4.7	24.2	7.9	3.9	0.004	0.042	...	...	0.081	-0.5	11.0	7.7	Tr.	...	1.3	350	96	96
December	48	C. & C.	4.5	24.4	8.2	3.9	0.012	0.040	...	...	0.119	-0.4	10.9	7.6	...	...	1.9	360	83	96

Chlorination data for 1961—Furnished by the Water Works Department.

Months	Quantity of water filtered in million gallons per day			Dose of chlorine applied to Raw-water in p.p.m.			Dose of chlorine applied to filtered water in p.p.m.			Lbs. of chlorine used per month for pre-chlorination of R. W.	Lbs. of chlorine used per month for post-chlorination of F. W.	Total lbs. of chlorine used per month and its equivalent <div>Kgms. Lbs.</div>	Total cost worked at 60 nP. per kilo plus 2% S. Tax	nP.
	Max.	Min.	Mean.	Max.	Min.	Mean.	Max.	Min.	Mean.				Rs.	
January	34.73	29.89	31.36	1.85	1.20	1.38	1.70	1.40	1.54	13,416	14,882	<div>12,836 28,298</div>	7,855	63
February	32.48	29.74	31.18	1.50	0.7	1.30	1.90	1.40	1.66	11,706	14,421	<div>11,851 26,127</div>	7,252	81
March	34.42	30.24	31.89	1.80	0.9	1.28	1.90	1.55	1.62	13,003	16,511	<div>13,388 29,514</div>	8,193	45
April	39.66	32.11	33.36	1.50	1.04	1.29	2.50	1.60	1.8	13,094	18,578	<div>14,366 31,672</div>	8791	99
May	35.94	33.68	34.70	1.80	1.08	1.3	2.6	1.7	2.27	13,944	24,694	<div>17,526 38,638</div>	13,725	91
June	36.66	33.94	34.70	1.40	1.08	0.96	2.70	2.0	2.3	11,863	24,460	<div>16,476 36,323</div>	10,083	31
July	34.95	32.19	33.51	1.80	0.90	1.30	2.60	2.03	2.58	13,408	25,521	<div>17,658 38,929</div>	10,806	70
August	33.84	31.29	32.50	1.60	1.1	1.3	2.8	2.11	2.5	14,133	25,035	<div>17,767 39,168</div>	10,873	40
September	35.24	31.64	32.70	1.50	0.80	1.2	2.60	2.20	2.4	12,753	24,722	<div>16,999 37,475</div>	10,403	39
October	35.22	32.41	33.30	1.50	0.5	1.2	2.6	2.1	2.4	12,941	24,412	<div>16,943 37,353</div>	10,369	12
November	36.17	32.46	33.45	1.50	1.04	1.32	2.50	2.10	2.36	13,471	24,027	<div>17,009 37,498</div>	10,409	51
December	36.19	32.70	33.59	1.50	1.07	1.3	2.6	1.8	2.4	13,742	24,570	<div>17,379 38,313</div>	10,635	95
Total														
1,90,198														

Some important Physical, Chemical and Bacteriological Results of saniples collected from the High Pressure areas of the City Distribution System in 1961.

(Results expressed in parts per 100,000.)

Months 1961.	No. of samples.	Smell.	Total solids.	Total hardness.	Chlorides.	Ammoniacal Nitrogen.	Albuminoid Nitrogen.	Nitrite.	Nitrate.	Oxygen absorbed (Tidy.)	Iron.	P.H.	% of samples showing absence in 60 c.c.
January	11	...	17.2	6.5	2.1	0.002	0.032	...	Tr.	0.082	Tr.	7.2	64
February	3	...	17.0	7.4	2.4	...	0.016	Tr.	Tr.	0.082	0.01	7.6	66
March	19	...	19.2	7.6	2.6	0.002	0.040	...	Tr.	0.098	0.01	7.4	95
April	8	...	21.0	8.1	2.8	0.004	0.040	Tr.	...	0.108	0.01	7.5	63
May	10	...	20.2	7.8	2.9	0.003	0.048	Pr.	...	0.100	0.01	7.6	90
June	...	...	...	...	...	...	...	...	...	...	...	...	...
July	...	...	...	...	...	...	...	...	...	...	...	...	...
August	12	...	21.5	7.9	3.7	0.003	0.040	Tr.	...	0.127	Tr.	7.7	58
September	25	...	24.3	8.1	3.9	0.004	0.040	...	...	0.088	Tr.	7.7	80
October	15	...	24.0	8.0	3.9	0.004	0.040	Tr.	...	0.105	Tr.	7.6	93
November	15	...	24.2	7.9	3.9	0.008	0.040	...	Tr.	0.081	Tr.	7.6	87
December	27	...	24.8	8.0	3.9	0.003	0.040	...	...	0.127	...	7.6	70

Some important Physical, Chemical and Bacteriological Results of samples collected from the Low Pressure areas of the city distribution system in 1961.

(Results expressed in parts per 100,000.)

Months 1961	No. of samples	Smell	Total solids	Total hardness	Chloride	Ammoniacal Nitrogen	Albuminoid Nitrogen	Nitrite	Nitrate	Oxy. Absorbed (Tidy)	Iron	pH	% of samples showing absence of Coliforms in 60 c.c.
January	79	...	16.6	6.4	2.1	0.002	0.032	...	...	0.070	Tr.	7.2	64
February	32	...	16.6	7.0	2.4	...	0.040	...	Tr.	0.087	Tr.	7.4	69
March	48	...	17.8	7.5	2.5	0.002	0.024	Tr.	Tr.	0.083	0.01	7.5	50
April	32	...	23.0	8.2	2.8	0.003	0.040	Tr.	...	0.110	0.015	7.4	63
May	30	...	19.4	8.0	2.9	0.003	0.042	Pr.	...	0.088	0.010	7.3	47
June	...	...	...	...	...	...	...	...	...	...	...	...	...
July	...	...	...	...	...	...	...	...	...	...	...	...	...
August	39	...	23.2	7.9	3.7	0.005	0.043	Tr.	...	0.115	Tr.	7.7	62
September	108	...	24.3	8.1	3.8	0.002	0.043	...	...	0.099	0.02	7.7	66
October	24	...	24.0	8.0	4.0	0.004	0.040	Pr.	...	0.085	0.01	7.6	50
November	82	...	24.6	8.2	3.9	0.019	0.040	...	...	0.079	0.01	7.6	57
December	72	...	24.8	8.0	4.0	0.003	0.040	...	...	0.117	...	7.5	72

WATER ANALYSIS

STATEMENT No. XIII.

Some important Physical, Chemical and Bacteriological results of samples collected from the Booster areas of the City Distribution System in 1961.

(Results expressed in parts per 100,000.)

Months 1961.	No. of samples.	Smell.	Total solids.	Total hardness.	Chlorides.	Ammoniacal Nitrogen.	Aluminoid Nitrogen.	Nitrite.	Nitrate.	Oxygen Absorbed (Tidy.)	Iron.	pH.	% of samples showing absence in 60 c.c. of Califorms in
January	18.0	6.5	2.2	...	0.016	...	...	0.098	0.01	7.3	25
February	18.4	7.2	2.4	..	0.028	Tr.	Tr.	0.087	Tr.	7.4	75
March
April	23.0	7.9	2.9	0.004	0.040	Pr.	...	0.116	0.010	7.6	0
May	19.8	8.0	3.0	0.003	0.042	Pr.	Tr.	0.121	0.010	7.3	25
June
July
August	22.4	8.5	4.0	0.002	0.043	Tr.	Tr.	0.132	0.010	7.7	33
September	24.6	8.2	3.9	0.003	0.040	...	...	0.089	Tr.	7.6	44
October	24.6	8.0	4.0	...	0.040	Pr.	...	0.093	0.015	7.6	20
November	24.6	8.0	3.9	0.003	0.040	...	...	0.060	0.010	7.6	67
December	23.4	7.9	3.9	0.003	0.042	...	...	0.117	0.010	7.6	50

WATER ANALYSIS

STATEMENT No. XIV.

Results of Chemical and Bacteriological Examination of the Infiltration Gallery Wells at Sembiam in 1961.
(Results expressed in parts per 100,000.)

Months 1961	Total solids	Total hardness	Chlorides	Ammoniacal Nitrogen	Albuminoid Nitrogen	Nitrite	Nitrate	Oxy. Absorbed (Tidy)	Phenolphthaleine alkalinity	Methyl Orange alkalinity	pH	Iron	Phosphates	Silicates	Sp. Conductivity (Micro mhos/c.m.)	B. Coli—present in how many c.c.
January	40.0	12.0	8.0	...	0.002	Tr.	Tr.	0.038	—2.2	9.2	6.9	0.02	0.01	4.0	575	-60 cc
February	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
March	37.2	12.0	9.0	...	0.003	Tr.	Tr.	0.060	—1.8	10.2	6.9	0.015	0.01	3.2	535	-60 cc
April	43.2	14.0	12.0	0.002	0.003	...	Tr.	0.043	—1.5	11.1	6.9	0.03	0.01	2.4	540	-60 cc
May	48.4	14.0	13.0	0.002	0.003	...	...	0.052	—2.8	13.2	7.1	0.05	0.008	3.2	600	-60 cc
June	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
July	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
August	51.6	21.0	15.0	0.002	0.002	...	Tr.	0.021	—2.0	12.4	7.1	0.08	0.004	4.8	775	-60 cc
September	51.2	21.0	16.0	0.002	0.003	...	Tr.	0.016	—2.6	12.2	6.9	0.04	0.003	4.0	730	-60 cc
October	55.4	21.0	17.0	...	0.002	...	Tr.	0.046	—3.4	11.6	6.9	0.01	0.001	2.0	790	-60 cc
November	56.0	21.0	16.0	0.002	0.002	...	Tr.	0.037	—0.4	15.9	7.0	0.05	0.002	3.0	800	-60 cc
December	50.4	19.0	16.8	0.002	0.002	...	...	0.056	—2.5	10.4	6.9	0.04	0.002	6.0	720	-60 cc

Results of Chemical and Bacteriological examination of the Infiltration Galley Well at Saidapet in 1961.
(Results expressed in parts per 100,000.)

Months 1961	Total solids	Total hardness	Chlorides	Ammoniacal Nitrogen	Albuminoid Nitrogen	Nitrite	Nitrate	Oxy. Absorbed (Tidy)	Phenolphthaleine alkalinity	Methyl Orange alkalinity	pH	Iron	Phosphates	Silicates	Sp. Conductivity (Micro mhos/c.m.)	B. Coill—present in how many c.c.
January	46.4	14.4	11.2	...	...	...	Pr.	0.021	—0.8	12.4	7.1	0.01	0.002	3.2	625	-60 cc
February	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
March	55.0	17.0	14.4	...	...	Tr.	Pr.	0.048	—1.1	13.6	7.3	0.01	0.01	4.0	680	-60 cc
April	58.8	20.0	15.0	...	...	Tr.	Pr.	0.040	—1.7	15.4	7.1	0.01	0.004	2.4	725	-60 cc
May	58.4	20.0	16.0	0.002	0.005	Tr.	Pr.	0.037	—1.5	15.6	7.1	0.015	0.008	3.2	725	-60 cc
June	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
July	60.0	23.0	16.0	0.003	0.003	Tr.	Pr.	0.037	...	16.4	7.2	0.01	0.01	4.8	790	-60 cc
August	59.2	24.0	16.0	0.003	0.002	...	Tr.	0.020	—1.6	15.8	7.1	0.02	0.002	6.0	805	-60 cc
September	55.0	22.0	17.0	...	0.002	...	Pr.	0.016	—1.0	15.6	7.5	0.015	0.01	4.8	790	-60 cc
October	57.4	23.0	15.0	...	0.003	...	Tr.	0.021	—1.5	16.5	7.2	0.01	0.004	2.0	830	-60 cc
November	59.6	24.0	16.0	0.002	0.002	Tr.	Pr.	0.006	—2.7	17.0	7.1	0.03	0.004	3.0	850	-60 cc
December	57.4	19.0	16.0	0.002	0.002	...	Pr.	0.050	—2.2	16.2	7.1	0.015	0.004	6.0	820	-60 cc

WATER ANALYSIS

STATEMENT No. XVI

Infiltration Gallery Systems—Distribution System—Results of Chemical and Bacteriological Examination in 1961.

(Results expressed in parts per 100,000.)

Months 1961.	SEMBIAM												SAIDAPET											
	No. of samples.	Total solids.	Total hardness.	Chlorides.	Amm. N.	Alb. N.	Nitrous. N.	Nitric. N.	Oxygen absorbed (Tidy).	Iron.	p.H.	B. coli—60 c.c. percent.	No. of samples.	Total solids.	Total hardness.	Chlorides.	Amm. N.	Alb. N.	Nitrous. N.	Nitric. N.	Oxygen absorbed (Tidy).	Iron.	p.H.	B. coli—60 c.c.
January	...	738.8	8.0	3.6	0.002	0.020	Tr.	Tr.	0.076	0.01	7.1	86	642.8	9.2	5.3	...	0.016	...	...	0.060	Tr.	7.5	100
February
March	...	635.4	13.0	6.6	...	0.013	...	Tr.	0.058	0.01	7.5	100	737.2	8.5	4.3	0.002	0.020	Tr.	Tr.	0.073	0.01	7.7	86	
April	...	746.0	11.8	7.6	0.002	0.024	Tr.	...	0.085	0.01	7.3	86	641.4	11.8	6.6	0.003	0.020	Tr.	Tr.	0.073	0.03	7.5	33	
May	...	946.4	15.0	9.6	0.008	0.020	Tr.	...	0.078	0.015	7.4	89	640.4	15.5	8.0	0.003	0.030	Pr.	Pr.	0.055	0.01	7.5	100	
June
July
August	...	737.9	14.8	11.5	0.009	0.021	...	Tr.	0.085	0.02	7.4	100	658.0	17.3	11.9	0.006	0.030	...	...	0.081	0.01	7.7	83
September	...	1534.8	12.8	9.1	0.009	0.028	...	Tr.	0.072	Tr.	7.8	93	643.6	14.5	10.0	0.002	0.030	...	...	0.064	Tr.	7.8	100
October	...	1042.4	13.1	9.4	0.002	0.015	...	...	0.102	0.01	17.4	100	558.2	21.0	13.5	0.002	0.002	Tr.	...	0.076	0.01	7.6	75
November	...	1552.4	17.4	14.9	0.002	0.010	...	...	0.046	0.03	7.3	100	1240.4	16.8	10.4	0.002	0.028	...	Tr.	0.046	0.01	7.6	58
December	...	838.4	16.3	14.0	0.002	0.012	...	...	0.056	0.02	7.1	75	642.3	11.5	8.6	0.002	0.044	Tr.	Tr.	0.099	0.01	7.6	83

Statement showing the variation in the concentration of the Chemical Constituent of water samples collected from the shallow wells, used as sources of water supply in certain outlying areas.

(Results expressed in parts per 100,000.)

Location of Wells.	Total solids.	Total hardness.	Chlorides.	Oxygen absorbed (Tidy).	Alkalinity to Phenolphthalein.	Alkalinity to Methyl orange.	pH.	Iron.	Sp. Conductivity (Micromhos/c.m.)	% of chlorinated samples showing absence of Coliforms in 60 c.c.
Eastern well, Adyar	10.8—18.0	5.2—6.8	0.2 to 1.2	0.048—0.096	Nil to 0.6	6.3—9.4	7.5—7.8	0.015—0.08	185—240	0%
Western well, Adyar	36.4—46.8	14.0—18.0	5.2—7.6	0.042—0.129	Nil to 1.2	15.8—21.8	7.6—7.9	Nil—Tr.	600—625	50
United India Colony, Kodambakkam	190—255	62—72	76—98	0.078—0.240	-26 to -6.1	40.8—46.6	7.1—7.7	0.04—0.15	2685—3650	66
Ganiapathy Colony, Guindy	68.2—107.8	23.0—62.0	13.0—35.0	0.006—0.136	Nil to 2.4	23.4—25.4	7.3—7.9	Nil—0.015	975—1540	60
Opposite Sunkumar Street, Marina	40.4—50.8	16.4—25.0	9.0—12.4	0.022—0.128	Nil to 0.8	9.4—17.0	7.9—8.2	Nil—0.01	635—665	88
Opposite Wenlock Park Marina	29.2—45.8	6.0—19.2	5.2—9.2	0.033—0.075	Nil to 1.2	9.4—17.2	7.9—8.2	Nil—Tr.	430—475	100
Chellapillayar Koil Street, Triplicane	62.8—133	27.0—31.0	15.0—41.0	0.037—0.067	-1.7 to 4.2	25.2—29.0	7.2—7.5	Tr. —0.01	1090—1270	57
Nagappier Street Triplicane	66.8—78.0	13.0—24.0	12.0—14.8	0.035—0.081	-0.5 to -2.7	25.4—29.8	7.3—7.5	Nil —0.01	955—1040	57
Kottur, Adyar	55.6—70.6	16.0—23.0	9.0—19.0	0.022—0.072	Nil to -3.7	17.2—20.6	7.1—7.2	Nil —Tr.	850—885	75
Cherian Nagar First Division	53.6—66.8	20.0—24.0	6.0—10.0	0.043—0.117	-0.5 to -2.0	13.4—16.4	7.2—7.5	Nil —0.01	765—865	0
Market Farm First Division	36.4—59.6	9.6—16.0	5.0—10.0	0.034—0.208	-0.4 to -1.5	6.6—19.4	7.3—7.7	Nil —0.02	575—850	0
Solayappan Street, 4th Division	50.4—64.4	22.0—28.0	6.0—11.0	0.085—0.152	-0.5 to -0.3	14.8—18.0	7.1—7.3	Nil —0.01	720—920	57
Puliyur, Kodambakkam	103—162	30.0—60.0	26.0—54.0	0.016—0.149	-2.0 to -6.2	30.6—45.6	7.0—7.4	Nil —0.01	2140—2310	17
I.D. Hospital	18.8—114	7.6—34.0	7.6—34.0	0.004—0.284	-0.4 to -3.5	8.0—31.8	7.2—7.5	Nil —0.02	1110—1635	0
Tower Clock, T.H.Road	64.4—108	26.0—42.0	9.0—24.0	0.042—0.112	-1.0 to -3.0	17.6—28.4	7.2—7.5	Nil 0.01	920—1510	86
Naduvakarai	42.8—57.8	11.0—16.0	11.0—14.0	0.066—0.080	-1.0 to -1.8	16.6—16.8	7.1—7.3	0.02—0.06	615—825	0

Summarised Report on the Sterilisation of Water Mains during the year 1961.
(Results expressed in parts per 100,000)

Serial No.	Place	No. of days worked.	Length of pipe line sterilised.	Total lbs. of chlorine used.	Before Sterilisation.						After Sterilisation.						% of reduction or increase in the Ammoniacal Nitrogen content in the treated sample as compared with that of untreated samples.	% of reduction or increase in the Albuminoid Nitrogen content in the treated samples as compared with that of untreated samples.	% of reduction or increase in the iron content in the treated samples as compared with that of untreated samples.	
					Ammoniacal Nitrogen.	Albuminoid Nitrogen.	Oxygen absorbed (Tidy)	Iron.	Phosphate.	Bacteriological % of first class samples.	Ammoniacal Nitrogen.	Albuminoid Nitrogen.	Oxygen absorbed (Tidy).	Iron.	Phosphate.	Bacteriological % of first class samples.				
I. Triplicane area—																				
1	Ellis road	47	2 miles.	266	0.002	0.046	0.115	0.005	0.001	59	0.002	0.040	0.104	.04	0.001	84	...	-13	+700	
2	Kuppumuthu Mudali Street...																			
3	Thayer Sahib Street (E.)																			
4	Thayer Sahib Street (W.)																			
5	General Patters Road																			
6	Peters Road																			
7	Besant Road																			
II. T. Nagar Area—																				
1	Kodambakkam High Road	68	2 miles and 6 fur.	419	0.006	0.037	0.001	0.01	0.001	79	0.005	0.042	0.087	0.05	0.002	90	-16	+13	+400	
2	G. N. Chetti Road																			
3	Madley Street																			
4	Sadasivam Road																			
5	Habibullah Road																			
6	Tilak Street																			
7	Sir Mohd. Usman Road																			
8	Bazullah Road																			

III. North Madras area—																							
1	C. B. Road	...	} 53	2 miles and 2 fur.	429	0. 02	0.042	0.103	0 05	Tr.	70	0.003	0.040	0.084	0.03	0.001	93	+50	— 5	+500			
2	T. H. Road	...																					
3	Kannai Street	...																					
4	Monegar Choultry Road	...																					
5	Wall Tax Road	...																					
IV. Chetput area—																							
1	Harrington Road (W.)	...	} 36	1 mile	209	Samples could not be collected.														
2	Appaswamy Mudali Street	...																					
3	Harrington Road (E.)	...																					
4	Spur Tank Road	...																					
V. Egmore area—																							
1	Egmore High Road	...	} 33	1 mile	198	0 003	0.040	0.126	0.005	...	100	0.003	0.040	0.117	0.03	...	100	+600			
2	Gengu Reddy Road	...																					
3	Casa Major Road	...																					
VI. Chintadripet area—																							
1	East Cooum Road	...	} 10	4 feet	60	0.002	0.040	0.122	0.01	0.001	63	0.007	0.042	0.107	0.05	...	75	+250	+5	+400			
2	Arunachala Naicken Street	...																					
VII. Miscellaneous—																							
1	Near Saidapet O.H. Tank	...	2	4 fur.	12	(Samples could not be collected.)													
2	Nagappa Mudaly Street	...	8	2 fur.	45	0.002	0.048	0.126	0.01	0. 01	50	0.002	0.040	0.112	0.05	...	75	...	—16	+400			
3	Arcoot Road	...	10	4 fur.	60	...	0.020	0.091	0.01	0.001	50	...	0. 30	0.075	0.03	0.005	100	...	+50	+200			

CHILD WELFARE SCHEME—STATEMENT No. 1
(See page 201)

Statement showing the number of cases of labour which came under the care and observation of Child Welfare Scheme during 1961.

Centre.	How conducted.					Caste.			Remarks.	
	By Nurses of C.W.S.	Taken to Hospitals.	Taken over after conducted by barber women.	Maternity ward.	Total.	Hindus.	Christians.	Muslims.	Twins.	Still births.
New Washermanpet ...	168	87	21	858	1,134	1,006	61	67	11	18
Grace Garden ...	277	13	11	...	301	174	9	118	5	6
Sanjeevirayanpet ...	191	61	13	674	939	867	14	58	6	11
Royapuram ...	213	13	4	...	230	167	7	56	3	...
Muthialpet ...	310	9	14	...	333	184	1	148	5	7
Ammen Koil (South) ...	212	41	7	828	1,088	867	53	168	6	12
Seven Wells (South) ...	181	65	2	570	818	708	18	92	7	10
Dr. Vijayaraghavalu Nagar. ...	437	185	22	971	1,615	1,240	24	351	11	34
Kondithope ...	251	13	1	...	265	201	9	55	3	8
Peddunaickenpet ...	118	...	...	...	118	118	...	...	2	3
Trevelyan Basin ...	117	51	1	804	973	971	1	1	5	22
Elephant Gate ...	45	10	1	...	56	56	...	...	3	...
Perambur ...	249	54	7	562	872	834	23	15	5	19
Pulianthope ...	620	142	33	1,168	1,963	1,496	65	402	26	40
Thiruvika Nagar ...	255	22	8	...	285	166	9	110	2	10
Choolai ...	251	204	9	1,377	1,841	1,774	45	22	10	25
Hospital Maidan ...	128	13	2	...	143	141	1	1	1	1
Sembiam ...	435	84	19	676	1,214	1,068	53	93	12	17
Ayanavaram ...	261	74	16	852	1,203	1,108	38	57	12	20
Nammalwarpet ...	190	9	7	...	206	195	6	5	3	5
Otteri ...	259	20	14	...	293	276	5	12	...	3
Perumalpet ...	7	2	...	34	43	40	1	2	1	...
Purasawalkam ...	150	27	1	908	1,086	973	67	46	5	18
Kilpauk ...	132	53	12	401	598	530	36	32	8	15
Chetpet ...	131	16	9	100	256	230	14	12	2	2
Nungambakkam (South) ...	162	10	5	...	177	172	3	2	1	5
Thousand lights (West) ...	174	11	2	...	187	143	13	31	2	3
Pudupakkam ...	357	87	5	692	1,141	713	9	419	6	27
Ashok Vihar ...	114	31	9	710	864	699	79	86	5	10
Park Town ...	42	4	...	...	46	44	2	...	...	...
Chintadripet ...	238	22	8	...	268	219	5	44	4	6
Pudupet ...	217	10	4	...	231	140	9	82	2	9
Zam Bazaar ...	231	20	2	...	253	155	1	97	3	5
Mirsahibpet ...	315	7	...	...	322	152	3	167	2	9
Durgahpuram ...	294	26	4	...	324	262	9	53	2	8
Teynampet ...	377	5	5	...	387	384	...	3	2	4
Karniswarapuram ...	438	4	2	...	444	359	8	77	2	6
Raja Annamalaipuram ...	308	8	1	...	317	303	10	4	...	4
Adayar ...	71	38	4	388	501	478	12	11	7	13
Vadapalani ...	246	119	4	1,395	1,764	1,614	80	70	14	44
Thiagaroyanagar ...	138	15	3	...	156	146	10	...	...	6
Satyamurthinagar ...	136	3	5	...	144	144	...	...	...	2
Saidapet North ...	115	10	6	...	131	126	...	5	1	2
Periapet ...	165	255	3	1,537	1,960	1,792	79	89	15	44
Guindy ...	79	11	1	...	91	91	...	...	...	4
Total ...	9,805	1,964	307	15,505	27,581	23,526	892	3,163	222	517

CHILD WELFARE SCHEME

STATISTICS SUPPLEMENT No. 2.

Statement showing the number of visits paid by the staff of
Child Welfare Scheme during 1961.

S. No.	Centre (New Name)	Midwives	Health Visitors	Assistant Surgeons	Total
1	New Washermanpet	7,800	7,496	711	16,007
2	Grace Garden	4,168	1,844	584	6,596
3	Sanjeevirayanpet	6,263	8,695	753	15,711
4	Royapuram	3,426	1,780	510	5,716
5	Muthialpet	5,548	2,112	666	8,326
6	Ammen Koil (South)	5,496	5,237	490	11,223
7	Seven Wells (South)	4,079	6,987	862	11,928
8	Dr. Vijayaraghavalu Nagar	11,934	12,720	768	25,422
9	Kondithope	4,239	2,648	519	7,406
10	Peddunaickenpet	2,610	1,977	360	4,947
11	Trevelyan Basin	3,563	6,310	953	10,826
12	Elephant Gate	1,306	1,465	319	3,090
13	Perambur	5,024	3,153	822	8,999
14	Pulianthope	14,575	16,499	966	32,040
15	Thiruvika Nagar	4,122	2,572	506	7,200
16	Choolai	7,310	9,183	996	17,489
17	Hospital maidan	2,756	1,460	446	4,662
18	Sembiam	8,133	3,328	857	12,318
19	Ayanavaram	6,151	5,417	789	12,357
20	Nammalwarpet	2,911	2,753	443	6,107
21	Otteri	4,796	1,728	594	7,118
22	Perumalpet	270	150	86	506
23	Purasawalkam	3,741	2,480	738	6,959
24	Kilpauk	3,557	2,118	739	6,414
25	Chetpet	2,676	3,802	767	7,245
26	Nungambakkam (South)	2,092	1,272	215	3,579
27	Thousand lights (West)	2,522	1,270	676	4,468
28	Pudupakkam	6,913	7,756	663	15,332
29	Ashok Vihar	4,241	4,679	338	9,258
30	Park Town	1,283	1,448	458	3,189
31	Chintadripet	3,587	2,383	320	6,290
32	Pudupet	2,224	1,578	187	3,989
33	Zam Bazaar	3,122	1,770	414	5,306
34	Mirsahibpet	4,018	1,772	451	6,241
35	Durgahpuram	3,430	1,428	1,061	5,919
36	Teynampet	2,479	1,650	399	4,528
37	Karniswarapuram	4,294	4,907	712	9,913
38	Raja Annamalaipuram	3,626	3,760	672	8,058
39	Adayar	2,401	2,726	576	5,703
40	Vadapalani	5,914	10,969	1,258	18,141
41	Thiagaroyanagar	2,649	1,305	488	4,442
42	Satyamurthinagar	2,279	1,260	519	4,058
43	Saidapet North	2,115	1,698	460	4,273
44	Periapet	5,738	8,557	822	15,117
45	Guindy	1,071	1,646	502	3,219
Total		1,92,452	1,77,748	27,435	3,97,635

CHILD WELFARE SCHEME.

STATISTICS SUPPLEMENT No. 3.

Statement showing deaths among cases brought under the care of
Child Welfare Scheme during the year 1961.

S. No.	Centre (New Name)	Deaths among cases brought under the care of C.W.S. but not under treatment			Deaths among cases brought under care and treatment of C.W.S.	Total
		Under Private Doctors	Under Vaidians	In Hospitals		
1	New Washermanpet	...	...	...	...	...
2	Grace Garden	...	...	1	...	1
3	Sanjeevirayanpet	...	...	...	...	...
4	Royapuram	...	...	...	...	...
5	Muthialpet	...	...	...	...	...
6	Ammen Koi (South)	...	...	2	...	2
7	Seven Wells (South)	...	...	1	...	1
8	Dr. Vijayaraghavalu Nagar	...	...	3	...	3
9	Kondithope	...	...	...	...	...
10	Peddunaickenpet	...	...	...	...	...
11	Trevelyan Basin	...	...	1	...	1
12	Elephant Gate	...	...	...	...	...
13	Perambur	...	...	1	...	1
14	Pulianthope	...	...	2	...	2
15	Thiruvika Nagar	...	...	...	...	...
16	Choolai	...	...	3	...	3
17	Hospital Maidan	...	...	...	...	...
18	Sembiam	...	...	...	...	...
19	Ayanavaram	...	...	1	1	2
20	Nammalwarpet	...	...	...	...	...
21	Otteri	...	...	1	...	1
22	Perumalpet	...	...	...	...	...
23	Purasawalkam	...	...	1	...	1
24	Kilpauk	...	...	...	...	...
25	Chetpet	...	...	...	...	...
26	Nungambakkam (South)	...	...	...	...	...
27	Thousand lights (West)	...	...	...	...	...
28	Pudupakkam	...	1	...	1	2
29	Ashok Vihar	...	...	...	...	...
30	Park Town	...	...	...	...	...
31	Chintadripet	...	...	...	...	...
32	Pudupet	...	...	...	...	...
33	Zam Bazaar	...	...	2	...	2
34	Mirsahibpet	...	...	...	...	...
35	Durgahpuram	...	...	1	...	1
36	Teynanpet	...	...	...	...	...
37	Karniswarapuram	...	...	...	...	...
38	Raja Annamalapuram	...	...	1	...	1
39	Adayar	...	...	1	...	1
40	Vadapalani	...	...	2	...	2
41	Thiagaroyanagar	...	...	1	...	1
42	Satyamurthinagar	...	...	...	...	...
43	Saidapet North	...	...	...	...	...
44	Pariapet	...	...	2	...	2
45	Guindy	...	...	...	...	...
Total ...		...	1	27	2	30

25	Chetpet	...	1,171	532	204	328	224	236	...	...	6	28	38	639	123	409	...	...	1	45	61
26	Nungambakkam (South)	...	729	435	173	262	185	159	...	...	8	39	44	394	53	164	3	3	17	23	30
27	Thousandlights (West)	...	1,099	347	196	151	131	165	1	1	3	3	43	752	28	534	...	...	17	71	162
28	Pudupakkam	...	1,915	1,275	330	945	835	297	4	2	13	35	89	640	76	388	11	3	5	62	95
29	Ashok Vihar	...	1,242	742	246	496	479	133	8	...	10	56	56	500	91	193	3	...	43	130	40
30	Park Town	...	610	192	138	54	121	41	8	...	1	5	16	418	104	121	34	...	3	111	45
31	Chintadripet	...	924	712	372	340	328	300	11	4	22	18	29	212	15	142	5	3	6	18	23
32	Pudupet	...	784	476	218	258	197	245	...	...	...	6	28	308	38	158	8	2	18	39	45
33	Zam Bazaar	...	1,005	568	383	185	234	219	3	14	4	26	68	437	25	221	7	4	3	122	55
34	Mirrh bpet	...	1,113	658	519	139	290	300	...	...	2	11	55	455	8	364	1	...	4	27	51
35	Durgahpuram	...	1,344	682	358	324	276	327	2	...	8	11	58	662	6	450	...	2	31	60	113
36	Teynampet	...	952	832	289	543	428	234	122	2	24	23	69	120	20	70	2	4	3	7	14
37	Karniswarapuram	...	1,675	929	315	614	354	460	...	2	5	2	106	746	38	470	4	2	12	10	210
38	Raja Annamalaipuram	...	1,118	594	245	349	257	247	...	...	2	2	86	524	22	399	...	...	3	20	80
39	Adayar	...	689	430	385	45	280	65	...	1	11	39	34	279	89	100	...	...	16	32	22
40	Valupalani	...	2,221	1,649	552	1,097	1,027	238	2	1	96	200	85	552	174	158	...	1	96	114	9
41	Thiagaroyanagar	...	604	445	250	195	250	102	...	...	21	39	33	159	34	35	4	...	12	57	17
42	Satyamurthinagar	...	722	424	234	190	228	128	1	...	15	52	20	298	48	96	...	...	47	90	17
43	Saidapet (North)	...	888	773	296	477	436	223	2	3	23	24	62	115	35	33	...	2	7	13	25
44	Periapet	...	1,895	1,330	636	694	799	223	3	3	38	166	98	565	152	166	7	7	56	129	48
45	Guindy	...	334	241	232	9	130	44	2	...	8	24	33	93	54	22	...	...	...	8	9
Total		...	53,246	33,907	15,880	18,027	20,641	7,424	174	151	688	1,947	2,882	19,341	4,621	8,128	244	115	955	2,631	2,647

CHILD WELFARE SCHEME.

Statement showing deaths among cases brought to

Serial number.	Centre.	Cardio-vascular diseases.			Respiratory diseases.		Alimentary Diseases.			Urinary tract diseases.	Toxaemia		
		Valvular diseases of heart.	Heart failure.	Anaemia.	Pneumonia.	Tuberculosis.	Tubercular enterities.	Dysentery.	Intestinal obstruction.	Renal failure,	Pre-eclamptic.	Cholamia.	Cerebral Thrombosis.
1	New Washermenpet...	..	..	..	..	..	..	..	..	..	..	..	..
2	Grace Garden	..	..	..	..	..	..	1	..	..	..	..	..
3	Sanjeevirayanpet	..	..	..	..	..	..	..	..	..	..	..	..
4	Royapuram	..	..	..	..	..	..	..	..	..	..	..	..
5	Muthialpet	..	..	..	..	..	..	..	..	..	..	..	..
6	Ammen Koil South.	..	..	..	..	..	..	..	..	..	..	..	..
7	Seven Well South	..	..	..	..	..	..	..	..	..	..	..	..
8	Dr. Vijarahavalu Nagar.	..	..	..	..	..	..	..	..	..	..	..	1
9	Kondithope	..	..	..	..	..	..	..	..	..	..	..	..
10	Peddunaickenpet	..	..	..	..	..	..	..	..	..	..	..	..
11	Tervelyan Basin	..	..	..	..	..	..	..	..	..	..	..	..
12	Elephant Gate	..	..	..	..	..	..	..	..	..	..	..	..
13	Perambur	..	..	..	..	..	..	..	..	..	..	..	..
14	Pulianthope	..	1	1	..	..	..	..	..	..	..	..	..
15	Thiruvika Nagar	..	..	..	..	..	..	..	..	..	..	..	..
16	Choolai	..	2	..	..	..	..	..	..	..	..	..	..
17	Hospital Maidan	..	..	..	..	..	..	..	..	..	..	..	..
18	Sembiam	..	..	..	..	..	..	..	..	..	..	..	..
19	Ayanavaram	..	1	..	..	..	..	..	..	..	..	..	..
20	Nammalwarpet	..	..	..	..	..	..	..	..	..	..	..	..
21	Otteri	..	..	..	..	..	..	..	..	..	..	..	..
22	Perumalpet	..	..	..	..	..	..	..	..	..	..	..	..
23	Purasawalkam	..	..	..	..	..	..	1	..	..	..	..	..
24	Kilpauk	..	..	..	..	..	..	..	..	..	..	..	..
25	Chetpet	..	..	..	..	..	..	..	..	..	..	..	..
26	Nungambakkam South.	..	..	..	..	..	..	..	..	..	..	..	..
27	Thousandlights West.	..	..	..	..	..	..	..	..	..	..	..	..
28	Pudupakkam	..	..	..	..	..	..	..	..	..	..	..	..
29	Ashok Vihar	..	..	..	..	..	..	..	..	..	..	..	..
30	Park Town	..	..	..	..	..	..	..	..	..	..	..	..
31	Chintadripet	..	..	..	..	..	..	..	..	..	..	..	..
32	Pudupet	..	..	..	..	..	..	..	..	..	..	..	..
33	Zam Bazaar	..	..	..	..	..	..	..	..	..	..	..	..
34	Mirsahibpet	..	..	..	..	..	..	..	..	..	..	..	..
35	Durgahpuram	..	..	..	..	..	..	..	..	..	..	..	..
36	Teynampet	..	..	..	..	..	..	..	..	..	..	..	1
37	Karniswarapuram.	..	..	..	..	..	..	..	..	..	..	..	..
38	Raja Annamalai puram.	..	..	..	..	..	..	..	..	..	..	..	..
39	Adayar	..	..	..	..	..	..	..	..	..	..	..	..
40	Vadapalani	..	..	..	..	..	..	..	..	..	..	..	..
41	Thiagroyanagar	..	..	1	..	..	..	..	..	..	..	..	..
32	Satyamurthinagar	..	..	..	..	..	..	..	..	..	..	..	..
43	Saidapet North	..	..	..	..	..	..	..	..	..	..	..	..
44	Periapet	..	1	..	..	..	..	..	..	..	..	..	..
45	Guindy	..	..	..	..	..	..	..	..	..	..	..	..
Total		..	5	2	..	..	..	2	..	..	..	..	2

notice of Child Welfare Scheme in 1961.

Haemorrhage.				Shock.				Infectious diseases.									
Accidental Haemorrhage	Placenta Praevai.	Intra and Post Partum Haemorrhage.	Retained Placenta.	Obstetric Shock.	Shock due to internal Manipulation.	Post-operative Shock.	Ruptured Uterus.	Tetanus.	Typhoid.	Meningitis.	Small-pox, Measles, etc.	Other Fevers.	Puerperal Sepsis.	Pulmonary Embolism.	Puerperal Mania.	Total.	
:: ::	:: ::	:: ::	:: ::	:: ::	:: ::	:: ::	:: ::	:: ::	:: ::	:: ::	:: ::	:: ::	:: ::	:: ::	:: ::	:: ::	1
:: ::	:: ::	:: ::	:: ::	:: ::	:: ::	:: ::	2	:: ::	:: ::	:: ::	:: ::	:: ::	:: ::	:: ::	:: ::	2	
:: ::	:: ::	1	2	:: ::	:: ::	:: ::	:: ::	:: ::	:: ::	:: ::	:: ::	:: ::	:: ::	:: ::	:: ::	3	
:: ::	:: ::	:: ::	:: ::	:: ::	:: ::	:: ::	:: ::	:: ::	:: ::	:: ::	:: ::	:: ::	:: ::	1	:: ::	1	
:: ::	:: ::	:: ::	1	:: ::	:: ::	:: ::	:: ::	:: ::	:: ::	:: ::	:: ::	:: ::	:: ::	:: ::	1	2	
:: ::	:: ::	:: ::	1	:: ::	:: ::	:: ::	:: ::	:: ::	:: ::	:: ::	:: ::	:: ::	:: ::	:: ::	3		
1	:: ::	:: ::	:: ::	:: ::	:: ::	:: ::	:: ::	:: ::	:: ::	:: ::	:: ::	:: ::	:: ::	:: ::	2		
1	:: ::	:: ::	:: ::	:: ::	:: ::	:: ::	:: ::	:: ::	:: ::	:: ::	:: ::	:: ::	:: ::	:: ::	1		
1	:: ::	:: ::	:: ::	:: ::	:: ::	:: ::	:: ::	:: ::	:: ::	:: ::	:: ::	:: ::	:: ::	:: ::	1		
1	:: ::	:: ::	:: ::	:: ::	:: ::	:: ::	1	:: ::	:: ::	:: ::	:: ::	:: ::	:: ::	1	2		
1	:: ::	:: ::	:: ::	:: ::	:: ::	:: ::	:: ::	:: ::	:: ::	:: ::	:: ::	1	:: ::	1	1		
1	:: ::	:: ::	:: ::	1	:: ::	:: ::	:: ::	:: ::	:: ::	:: ::	:: ::	:: ::	:: ::	2			
2	...	1	4	1	...	...	3	...	...	...	...	1	.	1	1	30	

CHILD WELFARE SCHEME.

STATISTICS SUPPLEMENT No. 6.

Statement showing the total number of priority milk consumers
during the year 1961.

Serial number.	Centre.	Expectant mothers.	Nursing mothers.	Infants.	Toddlers.	Total.
1	New Washermanpet	...	...	43	...	43
2	Grace Garden	...	...	25	...	25
3	Sanjeevirayanpet	...	...	97	...	97
4	Royapuram	...	...	...	...	...
5	Muthialpet	...	...	59	...	59
6	Ammen Koil (South)	...	...	65	...	65
7	Seven Wells (South)	...	...	84	3	87
8	Dr. Vijayaraghavalu Nagar	...	...	22	...	22
9	Kondithope	...	...	...	...	...
10	Peddunackenpet	...	...	49	...	49
11	Trevelyan Basin	...	...	...	...	...
12	Elepeant Gate	...	...	79	...	79
13	Perambur	...	...	...	...	...
14	Pulianthope	...	...	98	...	98
15	Thiruvika Nagar	...	...	...	...	...
16	Choolai	...	...	111	...	111
17	Hospital Maidan	...	...	77	...	77
18	Sembiam	...	...	69	...	69
19	Ayanavaram	...	...	61	...	61
20	Nammalwarpet	...	...	...	...	...
21	Otteri	...	...	111	...	111
22	Perumalpet	...	...	132	...	132
23	Purasawalkam	...	...	94	...	94
24	Kilpauk	...	...	41	...	41
25	Chetpet	...	...	83	...	83
26	Nungambakkam (South).	...	...	84	...	84
27	Thousandlights (West)	...	...	87	...	87
28	Pudupakkam	...	...	71	...	71
29	Ashok Vihar	...	...	...	...	...
30	Park Town	...	...	31	...	31
31	Chintadripet	...	...	100	...	100
32	Pudupet	...	...	91	...	91
33	Zam Bazaar	...	...	93	...	93
34	Mirsahibpet	...	...	42	...	42
35	Durgahpuram	...	...	93	...	93
36	Teynampet	...	...	80	...	80
37	Karniswarapuram	...	...	...	...	...
38	Raja Annamalaipuram	...	...	24	...	24
39	Adayar	...	...	...	...	...
40	Vadapalani	...	...	42	6	48
41	Thiagaroyanagar	...	...	89	...	89
42	Satyamurthinagar	...	...	65	...	65
43	Saidapet North	...	...	50	...	50
44	Periapet	...	...	106	...	106
45	Guindy	...	...	73	...	73
	Total ...	...	...	2,621	9	2,630

CHILD WELFARE SCHEME

STATISTICS SUPPLEMENT No. 7.

Statement showing the serological examination of blood conducted during the year 1961.

S. No.	Centre.	Total No. of blood samples examined.	No. of +ve cases.	No. of +ve cases that took full course of treatment.	No. of +ve cases that took partial treatment.	No. of +ve cases that did not turn up for treatment.
1	New Washermanpet ...	610	28	6	10	12
2	Sanjeevirayanpet ...	597	28	12	2	14
3	Ammen Koil (South) ...	836	39	18	13	8
4	Seven Wells (South) ...	801	24	11	7	6
5	Dr. Vijayaraghavalu Nagar	1,086	58	21	17	20
6	Trevelian Basin ...	609	16	7	3	6
7	Perambur ...	482	12	2	3	7
8	Pulianthope ...	1,869	78	27	16	35
9	Choolai ...	1,337	28	12	11	5
10	Sembiam ...	1,074	38	1	3	34
11	Ayanavaram ...	1,006	38	27	4	7
12	Purasawalkam ...	550	18	15	2	1
13	Kilpauk ...	581	19	14	3	2
14	Chetpet ...	512	26	11	9	6
15	Pudupakkam ...	1,111	34	10	14	10
16	Ashok Vihar ...	673	21	13	1	7
17	Adayar ...	386	18	14	...	4
18	Vadapalani ...	1,580	75	17	12	46
19	Periapet ...	1,303	52	32	4	16
Total ...		17,003	650	270	134	246

CHILD WELFARE SCHEME.

STATISTICS SUPPLEMENT No. 8.

Statement showing the number of Labour cases that came under the care and observation of Child Welfare Scheme—Infant mortality rate and Maternal mortality rate of Child Welfare Scheme from the years 1940 to 1961.

Year	No. of labour cases that came under the care and observation.	Infant mortality rate (per 1,000)	Maternal mortality rate (per 1,000)
1940 ...	14,489	115.80	2.50
1941 ...	14,984	103.40	2.60
1942 ...	8,390	104.40	3.00
1943 ...	11,227	113.50	2.40
1944 ...	10,591	140.60	2.20
1945 ...	14,002	141.90	1.57
1946 ...	19,147	102.80	2.50
1947 ...	18,412	81.70	1.95
1948 ...	26,051	83.00	1.91
1949 ...	28,129	70.41	2.31
1950 ...	26,957	95.52	2.00
1951 ...	29,931	123.16	1.90
1952 ...	32,264	125.43	1.73
1953 ...	27,219	114.23	1.76
1954 ...	29,209	110.31	1.27
1955 ...	32,285	105.75	1.39
1956 ...	31,267	109.30	1.15
1957 ...	31,955	108.25	0.94
1958 ...	30,671	104.32	1.01
1959 ...	29,709	99.40	0.64
1960 ...	29,087	94.51	0.89
1961 ...	27,581	93.29	1.09

CHILD WELFARE SCHEME.

STATISTICS SUPPLEMENT No. 9

Statement showing Pre-natal cases registered and ailments of pregnancy diagnosed and patients advised in 1961.

Serial No.	Child Welfare Centres.	Cardio Vascular diseases.			Respiratory diseases.				Alimentary Tract diseases.				Toxaemia of Pregnancy.						
		Valvular diseases of Heart.	Hypertension.	Varicose Veins.	Bronchitis.	Pneumonia.	Pulmonary Tuberculosis.	Asthma.	Constipation.	Dyspepsia.	Diarrhoea.	Dysentery.	Scanty Micturition.	Albuminuria.	Pyelitis.	Pre-eclamptic Toxaemia.	Eclampsia.	Jaundice.	General
1	New Washermanpet	2	..	2	36	..	1	13	9	7	7	7	..	..	..	18	..	..	..
2	Grace Garden	3	..	..	34	..	..	..	56	7	..	6	13	..	..	13	..	..	..
3	Sanjeevirayanpet	2	..	..	6	..	..	2	11	4	2	5	23	9	..	17	..	..	..
4	Royapuram	1	..	..	25	..	..	..	43	3	4	..	14	..	..	8	..	..	..
5	Muthialpet	2	..	..	18	..	1	4	49	..	2	3	28	7	..	10	..	..	45
6	Ammen Koil (South)	1	1	..	2	1	1	2	158	4	6	6	15	..	..	5	..	..	3
7	Seven Wells (South)	4	..	3	49	..	1	2	19	40	3	3	8	..	..	6	..	..	..
8	Dr. Vijayaraghavalu Nagar	..	..	..	5	..	..	3	7	44	24	20	..	17	..	27	..	..	..
9	Kondithope	1	..	..	67	..	..	1	29	22	9	8	82	..	..	..	..	..	..
10	Peddunaickenpet	..	..	..	36	..	1	..	15	14	..	3	41	6	3	8	..	..	..
11	Trevelyan Basin	..	..	..	46	..	1	..	10	76	4	6	13	..	..	..	..	..	..
12	Elephant Gate	..	..	1	11	..	..	7	35	6	1	1	16	1	..	4	..	..	1
13	Perambur	1	..	2	57	..	..	..	19	28	6	14	25	36	..	10	2	..	16
14	Pulianthope	1	..	..	57	..	..	3	19	38	..	3	27	6	..	42	..	..	..
15	Thiruvika Nagar	1	11	1	13	..	..	..	..	36	2	..	18	..	..	2	..	..	..
16	Choolai	..	1	..	34	..	..	..	1	25	..	2	..	..	..	72	..	..	..
17	Hospital Maidan	..	..	..	1	..	..	..	1	52	..	..	..	3	..	..	..	..	..
18	Sembiam	1	3	..	14	..	..	..	17	8	15	..	23	..	..	14	..	..	..
19	Ayanavaram	3	..	..	11	..	..	1	..	8	..	2	..	..	..	44	..	..	..
20	Nammalwarpet	..	5	..	..	..	1	..	..	11	..	..	21	..	..	3	..	..	..
21	Otteri	..	..	..	..	1	..	..	1	147	1	2	3	..	..	..	..	..	..
22	Perumalpet	..	..	1	2	..	..	..	..	2	..	..	1	..	..	3	..	..	..
23	Purasawalkam	..	3	1	20	..	..	4	3	70	5	10	80	6	..	14	..	..	..
24	Kilpauk	1	..	..	44	..	..	..	..	204	..	2	83	..	..	..	..	..	..
25	Chetpet	..	..	..	9	..	..	2	9	4	..	1	7	..	..	1	..	..	..
26	Nungambakkam	..	..	..	2	..	..	1	1	..	..	..	..	..	..	9	..	..	..
27	Thousandlights (West)	1	..	..	10	..	1	..	33	70	2	1	..	3	..	13	..	..	..
28	Pudupakkam	4	..	..	43	..	1	..	..	85	11	6	1	6	..	82	..	..	..
29	Ashok Vihar	1	1	1	..	..	..	2	23	13	4	1	7	..	..	8	..	..	..
30	Park Town	..	..	..	11	..	..	..	16	6	4	5	14	2	..	1	..	..	2
31	Chintadripet	3	..	..	9	5	..	8	13	11	4	4	13	4	..	29	..	..	2
32	Pudupet	3	3	..	6	..	..	2	2	2	..	2	9	..	..	6	..	..	..
33	Zam Bazaar	..	..	1	35	..	1	3	9	15	8	..	22	3	..	2	1	..	12
34	Mirsahibpet	..	..	..	64	..	..	3	22	11	5	5	19	3	..	..	..	..	21
35	Durgahpuram	1	..	..	20	..	..	1	49	125	6	4	3	7	..	10	..	..	5
36	Teynampet	..	..	..	14	..	..	1	3	27	3	2	..	2	..	..	..	..	..
37	Karniswarapuram	9	..	2	43	..	4	2	3	142	7	7	10	..	11	13	..	..	..
38	Raja Annamalaipuram	1	..	..	33	..	4	4	..	118	4	3	..	..	4	18	..	..	..
39	Adayar	1	..	..	1	..	..	1	..	..	1	..	..	..	..	3	1	..	1
40	Vadapalani	..	..	..	..	..	..	..	2	3	2	..	..	..	2	23	..	..	..
41	Thiagaroyanagar	..	..	..	..	..	..	..	..	..	..	2	2	..	..	4	..	..	..
42	Satyamurthinagar	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
43	Saidapet (North)	..	..	..	17	..	..	..	22	3	..	2	..	..	..	..	..	..	..
44	Periapet	1	..	..	16	..	..	..	2	79	4	7	21	10	..	..	..	..	22
45	Guindy	1	..	..	2	..	..	..	1	1	1	..	..	..	..	7	..	..	..
Total		50	28	15	923	7	18	72	709	1570	158	158	662	132	20	549	4	..	137

CHILD WELFARE SCHEME.

STATISTICS SUPPLEMENT No. 9.—Contd.

Statement showing Pre-natal cases registered and ailments of Pregnancy diagnosed and patients advised in 1961—Contd.

Serial No.	Child Welfare Centres.	Deficiency diseases.			Pyrexia.			Debi- lity.	Specific diseases.				Other diseases and abnormalities of pregnancy.							
		Calcium.	Vitamin.	Other Nutritional.	Influenza.	Malaria.	Rheumatism.		General Emaciation.	Skin diseases.	Ear, Nose and Throat.	Syphilis and Gonorrhoea.	Leucorrhoea.	Morning sickness.	Anaemia.	Ante-partum Haemorrhage.	Breast Abscess.	Hydramius	Normal.	Other diseases.	Total.
1	New Washermanpet	...	296	...	9	...	...	1	6	8	...	2	...	256	...	1	...	263	7	951
2	Grace Garden	...	25	...	6	...	26	...	...	...	...	1	...	203	...	...	...	201	9	605
3	Sanjeevirayanpet	...	145	...	...	...	1	34	20	...	...	...	...	124	...	...	...	273	43	728
4	Royapuram	...	33	...	7	...	...	24	1	...	...	2	...	177	...	...	...	130	13	485
5	Muthialpet	...	29	4	5	...	6	19	6	2	...	...	4	209	...	...	...	284	90	829
6	Ammen Koil (South)	...	138	64	6	1	...	34	1	9	39	10	14	47	2	...	...	235	120	937
7	Seven Wells (South)	...	66	...	4	...	...	62	5	...	...	1	...	194	...	...	...	410	25	905
8	Dr. Vijayaraghavalu Nagar	...	135	5	58	...	...	29	2	...	...	...	...	432	...	1	4	443	34	1,297
9	Kondithope	...	1	...	5	...	...	...	...	...	...	...	...	67	...	...	...	126	287	705
10	Peddunaickenpet	...	3	...	6	...	...	...	...	...	...	...	...	42	42	...	...	72	145	399
11	Trevelyan Basin	...	75	...	4	...	...	29	3	...	5	1	...	10	...	...	...	412	5	717
12	Elephant Gate	...	40	11	...	2	2	5	2	...	...	5	2	31	...	...	...	52	14	245
13	Perambur	...	44	18	2	...	...	15	...	...	...	...	...	10	39	...	3	298	278	926
14	Pulianthope	...	365	11	14	...	...	38	17	...	78	...	...	143	...	...	4	1,077	109	2,077
15	Thiruvika Nagar	...	104	14	25	...	...	87	...	...	...	1	...	84	...	...	...	259	30	695
16	Choolai	...	72	...	...	...	...	21	4	...	...	...	...	329	...	1	...	880	43	1,486
17	Hospital Maidan	...	24	24	...	...	...	...	...	...	...	1	...	180	...	...	...	188	62	535
18	Sembiam	...	134	2	4	...	...	2	...	...	25	...	...	213	...	...	3	601	45	1,147
19	Ayanavaram	...	74	30	...	...	...	86	9	...	38	...	...	105	...	...	4	606	8	1,030
20	Nammalwarpet	...	90	6	3	...	...	55	...	...	...	1	...	82	...	...	...	189	32	504
21	Otteri	...	160	...	...	...	...	...	...	...	...	...	...	270	...	...	...	443	90	1,118
22	Perumalpet	...	10	...	...	...	...	...	...	1	...	...	...	5	...	...	...	25	11	61
23	Pursawalkam	...	80	...	8	1	...	33	1	...	18	...	...	67	...	96	3	97	13	573
24	Kilpauk	...	74	...	...	...	...	95	...	...	...	...	...	22	...	...	...	157	4	686
25	Chetpet	...	70	7	...	...	...	65	5	...	...	...	99	...	...	...	2	240	16	532
26	Nungambakkam (South)	...	16	...	...	...	...	4	3	...	...	...	...	9	...	...	...	389	2	435
27	Thousandlights (West)	...	25	...	...	...	...	28	1	...	...	12	...	37	...	...	...	75	35	347
28	Pudupakkam	...	28	...	3	...	...	161	32	...	...	...	...	52	...	...	...	497	263	1,275
29	Ashok Vihar	...	64	...	1	...	...	10	2	...	...	...	...	46	...	...	...	370	188	742
30	Park Town	...	10	4	10	2	1	7	2	...	...	4	4	29	3	...	...	22	32	192
31	Chintadripet	...	95	31	3	3	3	37	10	1	...	6	...	126	...	4	...	247	28	712
32	Pudupet	...	15	3	...	...	...	6	2	...	...	...	...	18	...	...	...	387	9	476
33	Zam Bazaar	...	70	39	...	...	...	15	4	...	...	1	4	35	1	1	1	274	12	568
34	Mirsaibpet	...	76	50	...	...	...	20	7	...	...	1	5	50	...	...	...	275	21	658
35	Durgahpuram	...	63	...	...	...	...	22	2	...	1	13	...	122	...	...	...	141	87	682
36	Teynampet	...	50	...	...	...	...	32	...	...	...	...	...	126	...	...	...	559	8	832
37	Karniswarapuram	...	389	...	17	...	2	3	10	22	8	2	...	113	...	...	1	83	26	929
38	Raja Annamalaipuram	...	248	...	13	...	...	3	4	21	1	3	...	49	...	...	1	50	12	594
39	Adayar	...	121	...	...	...	...	3	3	...	18	...	...	181	1	...	...	86	8	430
40	Vadapalani	...	318	...	10	2	...	12	19	...	75	...	...	413	...	...	...	756	12	1,639
41	Thiagaroyanagar	...	4	...	3	...	...	...	...	...	...	...	...	3	...	...	...	426	1	445
42	Satymuthinagar	...	6	...	6	...	...	1	1	...	...	...	...	6	...	...	...	396	8	424
43	Saidapet (North)	...	59	...	1	...	...	20	1	...	...	...	...	107	...	...	...	518	10	773
44	Periapet	...	167	...	8	...	...	14	13	...	1	3	...	197	...	...	...	719	46	1,330
45	Guindy	...	80	...	...	...	...	...	...	13	1	...	...	96	...	...	...	45	4	241
Total		157	4191	323	241	11	41	1132	202	65	308	70	135	5116	45	11	26	14276	2345	33907

Statement showing Maternal Morbidity during the year 1961.

Serial number.	CENTRE-	Ante-Partum.					Intra and Post-Partum.										Puerperium.							Total.	
		Accidental Haemorrhage.	Placenta Praevia.	Anaemia.	Abnormal presentation.	Hydatiform Mole.	Ectopic Gestation.	Retained, placenta.	Post-Partum Haemorrhage.	Anatomical Abnormality contracted pelvis.	Malposition and disposition.	Tedious labour delayed 2nd stage.	Perineal and Cervical laceration.	Urinary Complication.	Puerperal Sepsis.	Phlebitis Thrombosis.	Pyrexia.	Uterine disorders.	Puerperal Toxæmias.	Anaemia.	Psychosis.	Diseases of Breasts.	Other diseases.		
1	New Washermanpet	10	..	10	28	40	40	65	..	2	..	9	7	2	6	16	235
2	Grace Garden	43	1	1	1	..	18	7	16	82	170
3	Sanjeevirayanpet	..	..	187	1	..	..	2	17	..	76	79	14	..	..	..	65	42	..	106	1	8	38	638
4	Royapuram	..	..	44	3	..	..	..	1	..	17	..	..	..	..	..	4	..	..	70	..	..	..	139
5	Muthialpet	..	..	..	..	..	..	..	..	..	4	2	9	..	..	..	..	..	..	25	..	1	23	64
6	Ammen Koil (South)	2	..	47	6	..	..	1	4	..	22	69	13	2	2	..	13	1	2	43	..	..	..	227
7	Seven Wells (South)	8	..	3	7	..	..	1	6	..	40	52	4	..	..	..	2	..	3	6	..	1	7	140
8	Dr. Vijayaragavalu Nagar	12	..	95	29	..	..	6	26	3	49	80	..	..	..	..	38	10	20	55	..	11	110	540
9	Kondithope	2	..	1	1	..	..	..	2	..	9	6	..	..	..	..	11	..	..	..	..	..	3	35
10	Peddunaickenpet	..	..	4	..	..	..	..	1	..	..	..	..	4	..	..	1	..	6	4	..	..	..	20
11	Trevelyan Basin	..	..	35	7	6	..	..	4	5	22	..	..	..	33	..	53	..	33	108	..	..	137	443
12	Elephant Gate	2	..	4	2	..	..	..	2	1	2	1	..	..	..	..	..	..	..	6	1	1	6	29
13	Perambur	5	7	6	..	..	5	2	3	4	24	4	3	..	..	..	..	..	..	6	4	..	13	86
14	Pulianthope	17	..	105	39	..	..	..	19	..	67	73	..	..	1	..	24	..	..	127	..	1	23	496
15	Thiruvika Nagar	..	..	30	5	..	..	..	..	..	15	9	6	..	..	..	11	..	..	44	..	..	8	128
16	Choolai	3	..	27	1	..	..	3	9	2	18	98	3	8	5	..	21	..	5	9	..	1	29	238
17	Hospital Maidan	..	..	5	..	..	..	..	..	..	7	1	..	..	1	..	1	..	..	44	..	..	..	59
18	Sembiam	12	..	9	10	..	..	1	9	..	47	23	..	..	..	..	33	..	..	27	..	14	36	221
19	Ayanavaram	10	..	25	22	..	..	2	1	..	30	28	..	4	..	..	108	20	2	12	..	1	20	286
20	Nammalwarpet	1	..	20	..	..	..	1	1	..	3	5	3	..	..	..	16	..	..	35	..	..	12	97

Statement showing infants born in 1960 and kept under observation during first year after birth.

Serial number.	Centre.	Total number of infants born in 1960.	Total number of still births in 1960.	Period.										Total number of deaths excluding still births.	Left the City or otherwise not traceable.	Said to be well.	Out of Division.	No. of living children in the City when one year old.	Total No. of living children when one year old.		
				1 to 7 days.		8 days to 1 month.		2 to 3 months.		4 to 6 months.		7 to 9 months.								10 to 12 months.	
				Died.	Not Traceable.	Died.	Not Traceable.	Died.	Not Traceable.	Died.	Not Traceable.	Died.	Not Traceable.							Died.	Not Traceable.
1	New Washermanpet	1,098	25	19	14	11	2	14	2	20	1	20	3	12	..	96	22	76	33	846	922
2	Grace Garden	315	2	9	..	..	..	8	..	9	1	11	1	10	1	47	3	31	..	231	262
3	Sanjeevirayanpet	1,116	20	27	12	10	4	16	3	23	14	25	13	23	25	124	71	151	3	747	898
4	Royapuram	205	4	4	..	1	..	5	1	6	..	5	..	6	..	27	1	17	..	156	173
5	Muthialpet	388	7	8	..	4	..	10	..	22	7	3	2	2	11	49	20	68	..	244	312
6	Ammen Koil (South)	1,096	13	22	18	11	12	14	12	26	13	27	21	13	35	113	111	229	..	630	859
7	Seven Wells (South)	944	20	16	26	9	1	19	10	18	29	20	21	19	55	101	142	90	..	591	681
8	Dr. Vijayaraghavalu Nagar	1,785	44	37	26	26	6	42	17	66	50	47	48	29	145	247	292	321	26	855	1,176
9	Kondithope	382	11	7	..	1	..	7	..	15	4	8	2	5	7	43	13	30	..	285	315
10	Peddunaickenpet	15	..	..	15	..	..	..	..	..	..	..	..	..	..	..	15	..	..	..	..
11	Trev. Iyan Basin.	1,010	24	17	15	4	9	23	5	30	15	23	19	13	22	110	85	190	..	601	791
12	Elephant Gate	66	2	..	..	2	..	2	1	..	1	1	2	1	..	6	4	11	..	43	54
13	Perambur	937	21	11	16	10	2	5	..	17	1	10	1	8	14	61	34	306	27	488	794
14	Pulianthope	1,504	27	21	39	18	18	23	16	28	24	34	43	29	66	153	206	251	4	863	1,114
15	Thiruvika Nagar	317	10	4	..	2	1	..	2	8	4	1	3	5	5	20	15	77	..	195	272
16	Choolai	2,271	37	45	54	15	12	33	10	56	26	31	21	37	64	217	187	456	..	1,374	1,830
17	Hospital Maidan	91	2	5	..	..	..	1	..	..	1	1	..	..	..	7	1	14	..	67	81
18	Sembiam	1,317	23	22	37	17	5	13	10	21	14	9	22	13	76	95	164	95	79	861	956
19	Ayanavaram	1,218	27	36	32	5	7	16	12	15	16	16	25	7	28	95	120	103	92	781	884
20	Nammalwarpet	221	4	7	1	2	1	6	2	3	5	2	1	2	4	22	14	36	..	145	181

21	Otteri	...	322	9	3	1	...	1	...	4	...	7	5	2	2	4	16	19	29	...	249	278
22	Perumalpet
23	Purasawalkam	...	1,118	24	17	33	8	4	...	14	17	16	16	11	17	48	88	126	196	684	880	
24	Kilpauk	...	557	14	14	11	6	...	...	6	5	12	5	10	2	16	39	55	82	367	449
25	Chetpet	...	612	10	7	11	6	8	10	3	10	8	6	9	5	15	44	54	111	393	504	
26	Nungambakkam (South)	...	160	5	1	...	1	...	3	...	2	2	4	12	2	3	13	17	33	92	125	
27	Thousandlights (West)	...	193	6	3	...	1	1	6	...	2	...	3	1	6	...	21	2	50	114	164	
28	Pudupakkam	...	1,207	23	17	6	5	10	32	13	53	...	25	46	23	62	119	190	267	610	877	
29	Ashok Vihar	...	836	13	19	15	6	4	6	7	15	15	8	13	9	31	55	85	199	470	669	
30	Park Town	...	70	...	1	1	...	...	1	...	...	...	...	1	1	1	6	3	13	48	61
31	Chintadripet	...	285	4	5	...	1	...	3	4	8	4	11	4	...	1	28	13	41	199	240	
32	Pudupet	...	271	8	1	...	6	...	12	...	12	4	4	4	5	2	35	10	41	177	218	
33	Zam Bazaar	...	304	8	3	...	3	...	6	2	6	...	4	2	5	3	24	7	39	226	265	
34	Mirsaibipet	...	358	7	10	...	5	...	15	3	5	5	6	9	2	11	44	28	45	234	279	
35	Durgahpuram	...	338	5	3	1	8	...	13	1	13	2	4	2	9	...	42	6	90	195	285	
36	Teynapet	...	418	12	14	...	3	...	5	3	5	2	7	...	2	39	38	44	46	278	324	
37	Karniswarapuram	...	498	14	13	...	5	1	9	...	9	2	4	3	12	...	47	6	36	385	431	
38	Raja Annamalaipuram	...	280	8	3	1	...	...	6	...	6	5	...	...	6	3	15	9	26	222	248
39	Adayar	...	420	6	4	4	7	1	5	3	5	5	6	5	7	8	36	26	48	279	327	
40	Vadapalani	...	1,633	38	31	43	8	9	26	14	56	19	67	7	7	82	107	271	207	896	1,103	
41	Thiagaroyanagar	...	179	4	5	1	...	...	1	2	7	...	...	5	1	3	10	18	31	116	147
42	Satyamurthinagar	...	185	6	4	1	...	...	1	2	5	...	...	1	1	1	7	10	...	120	162
43	Saidapet North	...	147	5	4	...	...	...	7	...	...	2	...	...	1	10	16	10	24	92	116
44	Periapet	...	2,286	53	43	66	27	23	26	44	50	19	30	22	161	284	71	279	304	1,205	1,484	
45	Guindy	...	112	1	4	1	...	1	1	...	1	6	1	...	...	3	13	7	16	75	91
Total		...	29,087	607	546	501	254	143	421	228	597	486	458	487	381	975	2657	2820	4553	17,729	22,282	

CHILD WELFARE SCHEME.

Statement showing causes of deaths among infants born in 1960 and kept

Serial Number.	CENTRE	Number of infants born in 1960.	Number of live births.	Number of still births in 1960.	Neo-Natal deaths					Infection Diseases.							Fevers		Diseases of Respiratory system.					
					Pre-maturity.	Asphyxia Neo Natorum.	Birth injuries.	Congenital malformation and complications.	Others.	Cholera.	Small-pox.	Diphtheria.	Measles.	Enteric fever.	Anterior poliomyelitis.	Meningitis.	Others.	Malaria.	Kala-Azar.	Others.	Tuberculosis of lungs.	Pneumonia.	Others.	
1	New Washermanpet	1,098	1,073	25	11	5	1		1	1		3	2							1	...	37	...	
2	Grace Garden	315	312	3	11							5								5	...	8	...	
3	Sanjeevirayanpet	1,116	1,096	20	5	15			3	4	2	7		1					1	...	8	...	31	...
4	Royapuram	205	201	4	5	1						2								1	...	5	...	
5	Muthialpet	388	381	7	4	5				1		1						1			...	11	3	
6	Amman Koil (South)	1,096	1,083	13	9	5	4		2	2	1	15	3	2	2	2		2		3	...	17	1	
7	Seven Wells (South)	944	924	20	5	1						8					6			17	...	2	3	
8	Dr. Vijayaraghavalu nagar	1,785	1,741	44	22	14	1		3	2		15									...	45	64	
9	Kondithope	382	371	11	7	1						2			1						...	5	...	
10	Peddunaickenpet	15	15																		...	...	...
11	Trevelyan Basin	1,010	986	24	8	9			1	3		5	1				2			19	...	10	...	
12	Elephant Gate	66	64	2	2										1						...	1	...	
13	Perambur	937	916	21	4	19	1			3		1					4				...	3	3	
14	Pulianthope	1,504	1,477	27	7	9			2	21		3								11	...	26	...	
15	Thiruvikanagar	317	307	10	4							3			1						...	7	...	
16	Choolai	2,271	2,234	37	20	22			2	16		3					2			18	...	43	4	
17	Hospital Maidan	91	89	2	3																...	...	...
18	Sembiam	1,317	1,294	23	19	2			1											11	...	11	...	
19	Ayanavaram	1,218	1,191	27	14	5	1		3	8		2					1		5		27	...	...
20	Nammalwarpet	221	217	4	7																...	4	...	
21	Otteri	322	313	9	3															4	...	...	...
22	Perumalpet	...	...	...	...	...	...														...	...	...
23	Purasawalkam	1,118	1,094	24	13	4			3	1		2					2			5	1	17	...	
24	Kilpauk	557	542	14	7	9												1		2	...	...	...
25	Chetpet	612	602	10	7	2						1		3			1			4	...	15	...	
26	Nungambakkam (South)	160	155	5	1							1									...	5	...	
27	Thousandlights (West)	193	187	6	4																...	...	...
28	Pudupakkam	1,209	1,186	23	5	1				1		12			47	1					3	...	...
29	Ashok Vihar	836	823	13	8	3			3			2					1			9	...	4	1	
30	Park Town	70	70		2																...	1	1	
31	Chintadripet	285	281	4	4	2						1									...	8	...	
32	Pudupet	271	263	8	8	3										1	1				...	...	...
33	Zam Bazaar	304	296	8	3		3			5											1	1	...	
34	Mirsahibpet	358	351	7	11	1				2		1								8	...	5	...	
35	Durgahpuram	338	333	5	3	3							1		1					2	1	2	3	
36	Teynampet	418	406	12	11	2				1				2							...	2	10	
37	Karniswarapuram	498	484	14	6	4	2			5											...	10	1	
38	Raja Annamalaipuram	280	272	8		1	1			1											...	4	...	
39	Adayar	420	414	6	9				6											1	...	5	...	
40	Vadapalani	1,633	1,595	38	21	2			5	4		1				1				19	...	1	...	
41	Thiagaroyanagar	179	175	4	4																...	3	...	
42	Satyamurthinagar	185	179	6	1																...	2	...	
43	Saidapet (North)	147	142	5	4																...	1	6	
44	Periapet	2,286	2,233	53	22	10	6		3			7	1	1		1				9	...	21	...	
45	Guindy	112	111	1	4															2	...	2	...	
Total		29,087	28,480	607	328	170	17		33	79	3	114	8	8	52	3	3	21	4	...	164	6	402	110

Under observation during first year of 1961.

Diseases Alimentary system.			Diseases Nervous system.		Diseases of liver.		V.D.	Diseases Nervous system				Deficiency Diseases		General Causes					Total number of deaths excluding still births.	Left the City or otherwise not traceable	Said to be well.	Out of Division.	Number of living children in the city and when one year old.	Total number of living children when one year old.	
Diarrhoea.	Dysentery.	Others.	Nephritis.	Others.	Cirrhosis.	Others.		Constitutional syphilis.	Convulsion.	Tetanus.	T. B. Meningitis.	Others.	Rickets.	Malnutrition	Others.	Septicaemia and Pyaemia	Accident injuries etc	Snake bite, scorpion sting etc.							Other causes.	Causes unknown.
25 4	3 3	1	2	...	...	...	1	1	...	...	...	...	1	...	...	...	...	...	...	96 47	22 3	76 31	33	846 231	922 262
23 1	8 3	2	...	...	...	...	2	...	...	...	...	...	9 9	...	2	...	...	2	...	124 27	71 1	151 17	3	747 156	898 173
19 22	2 7	...	...	1	...	1	...	2	...	...	...	...	1 3	...	...	...	...	...	...	49 113	20 111	68 229	...	244 630	312 859
25 43	5 10	1 1	...	...	...	...	...	...	7	...	...	...	...	...	1	...	...	...	20	101 247	142 292	90 321	...	591 855	681 1,176
24 ...	3 ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	43 ...	13 15	30	...	285 ...	315 ...
29 3	6 ...	2	...	...	5	...	2	...	...	...	...	...	...	...	2	...	...	...	6	110 6	85 4	190 11	...	601 43	791 54
10 29	3 13	...	2	4	...	...	...	...	2 5	...	...	2	...	...	...	...	...	...	2	61 153	34 206	306 251	27 4	488 863	794 1,114
3 46	1 7	...	...	...	...	...	...	...	...	...	...	...	14	7	1 4	...	...	...	...	20 217	15 187	77 456	...	195 1,374	272 1830
2 39	...	...	...	...	...	...	...	...	2 6	...	...	...	...	...	...	...	...	...	...	7 95	1 164	14 95	...	67 861	81 956
20 4	4 4	...	...	...	...	...	1	...	1	...	...	...	1	...	...	1	...	...	1	95 22	120 14	103 36	92	781 145	884 181
5 ...	2 ...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	16 ...	19 ...	29	...	249 ...	278 ...
23 13	3 3	...	...	...	...	...	...	...	5	...	...	...	6 3	1	...	...	...	2 1	...	88 39	126 55	196 82	...	684 367	880 449
5 6	2 ...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	2	44 13	54 12	111 33	...	393 92	504 125
10 34	2 2	...	1	...	...	...	...	1	1	...	...	2	...	...	...	...	...	...	...	21 119	2 190	50 267	...	114 610	164 877
9 1	...	1	...	...	...	...	...	1	...	...	...	...	2	...	...	...	...	...	11	55 6	85 3	199 13	14	470 48	609 61
8 16	1 ...	...	...	...	...	...	...	...	1 3	...	...	...	...	...	...	...	...	...	3	28 35	13 10	41 41	...	199 177	240 218
5 10	4 2	...	1	...	...	...	...	...	1	...	...	...	1 2	...	...	...	...	...	...	24 44	7 28	39 45	...	226 234	265 279
11 10	4 ...	2	...	...	...	...	...	...	3	...	...	...	5	...	...	...	...	...	1	42 38	6 44	90 46	...	195 278	285 324
17 8	1 ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	47 15	6 9	46 26	...	385 222	431 248
12 39	...	...	...	...	...	...	1	...	...	...	...	...	1 10	...	1	...	...	...	...	36 107	26 271	48 207	25 114	279 896	327 1103
1 ...	...	1	...	...	...	...	...	...	...	...	...	...	1 ...	...	...	...	...	...	...	10 7	18 10	31 42	...	116 120	147 162
46 5	5 2	...	...	...	...	1	...	2	2	...	...	...	4 ...	2	9	...	1	8	...	16 161	10 284	24 279	...	92 1,205	116 1484
	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	13	7	16	...	75	91
665	119	14	7	11	2	7	8	62	...	...	3	4	125	15	23	1	1	18	48	2657	2820	4553	721	17729	22282

CHILD WELFARE SCHEME.

STATISTICS SUPPLEMENT No.

Statement showing the total number of Attendance of Expectant and Nursing Mothers and Children at the Out-Patient Clinics in 1961.

S. No.	Centre.	Attendants at Clinics								Total of New Attendance	Total of Old Attendance.
		Infants		Pre-School Children		Expectant Mothers.		Nursing Mothers			
		New	Old	New	Old	New	Old	New	Old		
1	2	3	4	5	6	7	8	9	10	11	12
1	New Washermanpet ...	1,456	3,532	191	122	951	1,038	1,507	3,529	4,105	8,221
2	Grace Garden ...	573	1,057	51	24	605	624	711	1,118	1,940	2,823
3	Sanjeevirayanpet ...	1,445	4,262	181	139	728	1,271	1,890	4,439	4,244	10,111
4	Royapuram ...	466	687	66	22	485	556	630	777	1,647	2,041
5	Muthialpet ...	795	1,695	55	36	829	822	1,100	1,796	2,779	4,349
6	Ammen Koil (South) ...	1,474	3,629	383	709	937	1,455	1,744	4,191	4,538	9,984
7	Seven Wells (South) ...	1,423	5,247	330	390	905	1,866	1,720	5,021	4,378	12,524
8	Dr. Vijayaraghavalu Nagar	2,330	5,575	261	175	1,297	1,101	3,181	5,814	7,069	12,665
9	Kondithope ...	559	558	85	23	705	517	566	493	1,915	1,591
10	Peddunaickenpet ...	469	756	70	90	399	485	425	675	1,363	2,006
11	Trevelyan Basin ...	1,676	4,428	584	404	717	1,008	1,754	4,191	4,731	10,031
12	Elephant Gate ...	336	683	112	59	245	326	436	678	1,129	1,746
13	Perambur ...	1,387	4,830	467	303	926	1,026	2,248	4,966	5,028	11,125
14	Pulianthope ...	3,039	5,353	422	244	2,077	2,469	3,511	4,168	9,049	12,234
15	Thiruvika Nagar ...	894	565	106	30	695	415	1,263	601	2,958	1,611
16	Choolai ...	2,956	6,715	3,149	1,141	1,486	2,176	4,335	8,529	11,926	18,561
17	Hospital Maidan ...	509	1,298	58	22	535	549	718	1,379	1,820	3,248
18	Sembiam ...	1,534	5,764	140	177	1,147	2,532	3,204	6,737	6,025	15,210
19	Ayanavaram ...	1,681	4,796	335	240	1,030	1,443	2,051	4,873	5,097	11,352
20	Nammalwarpet ...	782	525	87	48	504	330	1,034	556	2,407	1,459
21	Otteri ...	548	432	34	6	1,118	341	874	462	2,574	1,241
22	Perumalpet ...	110	95	99	53	61	145	137	124	407	417
23	Puraswalkam ...	1,785	5,500	732	480	573	1,090	1,934	5,580	5,024	12,650
24	Kilpauk ...	609	776	86	36	375	385	764	542	1,834	1,739
25	Chetpet ...	1,077	3,075	839	2,110	534	1,380	1,451	3,504	3,901	10,069
26	Nungambakkam (South) ...	331	102	16	2	435	83	404	62	1,186	249
27	Thousand Lights (West) ...	748	2,472	283	214	347	485	882	2,176	2,260	5,347
28	Pudupakkam ...	1,823	8,653	365	403	1,275	2,864	2,139	8,472	5,602	20,392
29	Ashok Vihar ...	1,751	1,577	1,432	251	742	852	1,535	1,707	5,460	4,387
30	Park Town ...	278	555	101	151	192	331	300	546	871	1,583
31	Chintadripet ...	558	556	52	13	712	420	826	603	2,148	1,592
32	Pudupet ...	503	599	74	22	476	309	661	543	1,714	1,473
33	Zam Bazaar ...	942	1,232	203	181	568	1,010	785	1,194	2,498	3,617
34	Mirsaibpet ...	815	1,218	113	89	658	789	854	1,132	2,440	3,228
35	Durgahpuram ...	868	2,074	182	243	682	902	1,070	1,858	2,802	5,077
36	Teynampet ...	590	604	103	19	832	577	867	648	2,392	1,848
37	Karniswarapuram ...	944	1,282	340	305	929	1,388	1,263	1,278	3,476	4,253
38	Raja Annamalaipuram ...	946	1,170	360	301	594	1,190	1,134	1,079	3,034	3,740
39	Adayar ...	755	374	409	132	430	465	814	401	2,408	1,372
40	Vadapalani ...	3,643	8,878	242	220	1,649	3,556	4,566	9,216	10,100	21,870
41	Thiagaroyanagar ...	239	188	11	2	445	57	186	30	881	277
42	Satyamurthinagar ...	252	56	19	...	424	67	205	26	900	149
43	Saidapet Sub-Centre ...	665	931	209	52	773	855	1,007	1,037	2,654	2,875
44	Periapet ...	2,555	9,956	480	920	1,330	1,570	3,977	10,734	8,342	23,180
45	Guindy ...	598	470	427	135	241	440	613	479	1,879	1,524
	Total ...	49,714	14,779	14,344	10,738	33,907	43,560	63,276	1,17964	1,61,243	2,87,041

CHILD WELFARE SCHEME.

STATISTICS SUPPLEMENT No. 13—Contd.

Statement showing the total number of Attendance of Expectant and Nursing Mothers and Children at the Out-Patient Clinics in 1961.

S. No.	Centre	Diseases Treated (New.)										Total
		Respiratory	Alimentary	Skin Affection	Influenza	Ear and Eye Diseases	Anaemia	Vitamin Diseases	Malaria	Normal	Other Diseases	
		14	15	16	17	18	19	20	21	22	23	24
1	New Washermanpet ...	390	316	17	155	10	267	315	...	2,497	138	4,105
2	Grace Garden ...	110	174	11	97	2	249	25	2	1,085	185	1,940
3	Sanjeevirayanpet ...	308	535	91	253	59	349	228	...	949	1,472	4,244
4	Royapuram ...	93	166	9	114	1	239	20	2	772	231	1,647
5	Muthialpet ...	531	536	18	176	4	276	80	7	902	249	2,779
6	Ammen Koil (South) ...	728	919	71	221	8	238	232	4	1,716	365	4,538
7	Seven Wells (South) ...	513	402	69	185	23	540	124	...	2,237	285	4,378
8	Dr. Vijayaraghavalu Nagar	799	1,005	99	571	12	950	733	...	2,794	106	7,069
9	Kondithope ...	426	343	52	101	8	92	36	4	534	319	1,915
10	Peddunaickenpet ...	284	205	18	59	3	38	26	...	547	183	1,363
11	Trevelyan Basin ...	811	472	104	40	18	102	208	...	2,479	497	4,731
12	Elephant Gate ...	287	178	67	70	9	174	51	9	187	97	1,129
13	Perumbur ...	878	754	77	...	53	209	318	...	1,250	1,489	5,028
14	Pulianthope ...	1,988	1,383	564	1,035	751	861	636	...	834	997	9,049
15	Thiruvika Nagar ...	304	186	94	151	62	102	74	1	1,683	301	2,958
16	Choolai ...	1,904	1,981	354	1,717	139	987	901	26	708	3,209	11,926
17	Hospital Maidan ...	112	219	5	129	...	160	155	...	510	530	1,820
18	Sembiam ...	194	856	16	91	...	431	254	...	2,946	1,237	6,025
19	Ayanavaram ...	1,176	882	60	209	23	393	415	...	547	1,392	5,097
20	Nammalwarpet ...	307	158	61	122	34	72	79	...	1,305	269	2,407
21	Otteri ...	231	359	17	207	8	238	274	...	659	581	2,574
22	Perumalpet ...	60	49	4	70	...	18	24	...	28	154	407
23	Pursawalkam ...	915	487	380	429	174	184	255	...	1,663	537	5,024
24	Kilpauk ...	465	597	46	368	28	261	331	8	794	882	3,780
25	Chetpet ...	491	481	134	84	11	207	188	5	1,606	694	3,901
26	Nungambakkam (South)...	13	23	4	19	1	14	19	...	1,037	56	1,186
27	Thousand Lights (West)...	469	444	97	27	8	173	177	...	453	412	2,260
28	Pudupakkam ...	363	543	103	224	10	87	306	...	3,161	805	5,602
29	Ashok Vihar ...	1,375	1,755	488	514	442	62	112	...	400	312	5,460
30	Park Town ...	203	129	49	27	48	125	35	6	169	80	871
31	Chintadripet ...	371	249	78	135	33	364	181	12	526	199	2,148
32	Pudupet ...	95	68	5	39	...	63	24	...	1,233	187	1,714
33	Zam Bazaar ...	612	542	124	41	25	155	43	1	955	...	2,498
34	Mirsahibpet ...	501	489	80	19	3	175	58	...	1,115	...	2,440
35	Durgahpuram ...	589	497	105	12	22	292	214	...	560	511	2,802
36	Teynampet ...	310	335	19	90	...	382	69	...	1,077	110	2,392
37	Karaniswarapuram ...	720	565	231	108	16	323	599	...	157	757	3,476
38	Raja Annamalaipuram ...	652	500	222	125	12	275	515	...	164	569	3,034
39	Adayar ...	390	299	69	270	20	299	239	...	351	471	2,408
40	Vadapalani ...	2,051	1,522	222	770	247	1,328	578	...	1,906	1,476	10,100
41	Thiagarayanagar ...	31	22	10	10	2	8	11	...	780	7	881
42	Satyamurthinagar ...	37	14	6	9	...	9	15	...	799	11	900
43	Saidapet Sub-Centre ...	385	397	27	81	1	363	88	1	1,202	109	2,654
44	Periapet ...	540	684	62	254	6	354	262	...	5,208	972	8,342
45	Guindy ...	322	261	63	254	22	227	174	...	211	345	1,879
Total ...		24,164	22,981	4,532	9,522	2,358	13,314	9,601	88	52,633	23,688	162,881

Statement showing immunisation of children with triple antigen.

S. No.	Name of the centres.	No. to whom the 1st injection was given.	No. to whom the 2nd injection was given.	No. to whom the 3rd injection was given.
1	New Washermanpet ...	12	4	4
2	Sanjeevirayanpet ...	16	1	2
3	Muthialpet ...	5	5	...
4	Ammen Koil (South) ...	9	8	8
5	Seven Wells (South) ...	10	1	...
6	Dr. Vijayaraghavalu Nagar ...	20	9	6
7	Elephant Gate ...	20	20	...
8	Pulianthope ...	81	8	3
9	Choolai ...	76	52	16
10	Chetpet ...	40	22	14
11	Ashok Vihar ...	698	251	97
12	Park Town ...	5	5	...
13	Chintadripet ...	20	20	...
14	Karniswarapuram ...	19	7	6
15	Raja Annamalaipuram ...	25	8	...
16	Adyar ...	78	16	8
17	Vadapalani ...	31	15	5
18	Periapet ...	23	10	99
19	Guindy ...	58	58	13
Total ...		1,246	520	281

CHILD WELFARE SCHEME

STATISTICS SUPPLEMENT No. 15

Annual Return—Maternity and Child Welfare Scheme for the year 1961.

S. No.	CENTRES.	Brought under Care.					Home Visits.					
		Maternity cases Total No. of Mothers.	Ante-Natal.	Labour.	Infants.	Pre-School.	Women Medical Officers.	Health Visitors.				Total.
								Ante-natal	Post-Natal	Infants.	Toddlers.	
1	2	3	4	5	6	7	8	9	10	11	12	13
1	New Washermanpet ...	1,498	951	1,134	1,116	922	711	74	218	6,199	1,005	7,496
2	Grace Garden ...	832	605	301	295	262	584	...	276	1,140	428	1,844
3	Sanjeevirayanpet ...	1,724	728	939	928	898	753	33	133	7,840	689	8,695
4	Royapuram ...	909	485	230	230	173	510	3	170	1,387	220	1,780
5	Muthialpet ...	1,392	829	333	326	312	666	...	18	1,410	684	2,112
6	Ammen Koil (South) ...	1,546	937	1,088	1,076	859	490	...	703	3,866	668	5,237
7	Seven Wells (South) ...	1,372	905	818	808	681	862	...	778	5,406	803	6,987
8	Dr. Vijayaragavalu Nagar ...	2,450	1,297	1,615	1,581	1,176	768	...	819	10,595	1,306	12,720
9	Kondithope ...	1,196	705	265	257	315	519	16	301	1,868	463	2,648
10	Peddunaickenpet ...	840	399	118	115	...	360	15	180	1,478	304	1,977
11	Trevelyan Basin ...	1,283	717	973	951	791	953	129	499	5,114	568	6,310
12	Elephant Gate ...	421	245	56	56	54	319	...	28	1,307	130	1,465
13	Perambur ...	926	926	872	853	794	822	...	722	1,857	574	3,153
14	Pulianthope ...	2,895	2,077	1,963	1,923	1,114	966	214	2,019	12,553	1,713	16,499
15	Thiruvika Nagar ...	807	695	285	275	272	506	...	138	1,916	518	2,572
16	Choolai ...	2,054	1,486	1,841	1,816	1,830	996	249	588	7,065	1,281	9,183
17	Hospital Maidan ...	648	535	143	142	81	446	...	46	1,112	302	1,460
18	Sembiam ...	1,953	1,147	1,214	1,197	956	857	...	571	1,861	896	3,328
19	Ayanavaram ...	1,580	1,030	1,203	1,183	884	789	...	1,019	3,482	916	5,417
20	Nammalwarpet ...	622	504	206	201	181	443	...	158	2,215	380	2,753
21	Otteri ...	1,122	1,118	293	290	278	594	...	64	1,039	625	1,728
22	Perumalpet ...	117	61	43	43	...	86	...	9	136	5	150
23	Purasawalkam ...	924	573	1,086	1,068	880	738	3	158	1,862	457	2,480
24	Kilpauk ...	1,123	686	598	583	449	739	...	280	1,429	409	2,118
25	Chetpet ...	1,171	532	256	254	504	767	4	79	3,304	415	3,802
26	Nungambakkam (South) ...	729	435	177	172	125	215	...	23	1,071	178	1,272
27	Thousandlights (West) ...	1,099	347	187	184	164	676	...	123	1,028	119	1,270
28	Pudupakkam ...	1,915	1,275	1,141	1,114	877	663	...	102	6,750	904	7,756
29	Ashok Vihar ...	1,242	742	864	854	669	338	...	38	4,078	563	4,679
30	Park Town ...	610	192	46	46	61	458	...	16	1,242	190	1,448
31	Chintadripet ...	924	721	268	262	240	320	3	113	1,986	281	2,383
32	Pudupet ...	784	476	231	222	218	187	...	17	1,369	192	1,578
33	Zam Bazaar ...	1,005	568	253	248	265	414	...	31	1,455	284	1,770
34	Mirsahibpet ...	1,113	658	322	313	279	451	...	18	1,427	327	1,772
35	Durgahpuram ...	1,344	682	324	316	285	1,061	...	175	1,039	214	1,428
36	Teynampet ...	952	832	387	383	324	399	...	155	1,152	343	1,650
37	Karaniswarapuram ...	1,675	929	444	438	431	712	...	415	4,059	433	4,907
38	Raja Annamalaipuram ...	1,118	594	317	313	248	672	...	327	3,166	267	3,760
39	Adayar ...	689	430	501	488	327	576	...	158	2,234	334	2,726
40	Vadapalani ...	2,201	1,649	1,764	1,720	1,103	1,258	...	1,744	8,194	1,031	10,969
41	Thiagaroyanagar ...	604	445	156	150	147	488	...	362	766	177	1,305
42	Satyamurthinagar ...	722	424	144	142	162	519	...	266	768	226	1,260
43	Saidapet (North) ...	888	773	131	129	116	460	...	83	1,163	452	1,698
44	Periapet ...	1,895	1,330	1,960	1,916	1,484	822	...	417	7,510	630	8,557
45	Guindy ...	334	241	91	87	91	502	...	58	1,465	123	1,646
Total ...		53,248	33,907	27,581	27,064	22,282	27,435	743	14,615	1,39,363	23,027	1,77,748

Annual Return—Maternity and Child Welfare Scheme for the year 1961—contd.

S. No.	CENTRES.	Home Visits—contd.			Clinics.						Maternal Mortality and Morbidity.	
		Midwives.			Ante-natal.		Post-natal.		Infants and Toddlers.		Mortality.	Morbidity.
		Ante-natal.	Post-natal.	Total.	No. held.	Attendance.	No. held.	Attendance.	No. held.	Attendance.		
		14	15	16	17	18	19	20	21	22	23	24
1	New Washermenpet	1,017	6,783	7,800	154	951	41	146	78	226	...	235
2	Grace Garden	823	3,345	4,168	103	605	52	124	52	333	1	170
3	Sanjeevirayanpet	2,359	3,904	6,263	147	1,999	45	269	90	499	...	638
4	Royapuram	1,001	2,425	3,426	104	485	52	69	52	201	...	139
5	Muthialpet	722	4,826	5,548	97	829	52	261	49	346	...	64
6	Ammen Koil (South)	1,546	3,950	5,496	141	937	46	283	83	496	2	227
7	Seven Wells (South)	317	3,762	4,079	143	905	48	254	85	573	1	140
8	Dr. Vijayaraghavalu Nagar.	2,900	9,034	11,934	156	1,467	51	214	101	371	3	540
9	Kondithope	1,131	3,108	4,239	104	705	52	200	52	618	...	35
10	Peddunaickenpet	604	2,006	2,610	94	792	45	170	44	457	...	20
11	Trevelyan Basin	686	2,877	3,563	147	717	50	218	136	1,037	1	443
12	Elephant Gate	308	998	1,306	94	326	52	66	52	204	...	29
13	Perambur	842	4,182	5,024	130	936	51	172	83	664	1	86
14	Pulianthope	1,736	12,839	14,575	150	2,077	51	293	97	816	2	496
15	Thiruvika Nagar	591	3,531	4,122	86	695	74	1,263	47	1,000	...	128
16	Choolai	1,300	6,010	7,310	140	1,486	41	323	78	727	3	238
17	Hospital Maidan	529	2,227	2,756	85	535	43	85	50	226	...	59
18	Sembiam	907	7,226	8,133	142	1,147	45	169	86	461	...	221
19	Ayanavaram	1,017	5,134	6,151	156	1,030	44	209	87	417	2	286
20	Nammalwarpet	532	2,379	2,911	86	504	46	1,034	46	869	...	97
21	Otteri	300	4,496	4,796	96	1,118	43	70	46	198	1	86
22	Perumalpet	79	191	270	19	61	5	12	13	26	...	7
23	Purasawalkam	689	3,052	3,741	144	730	52	230	100	790	1	173
24	Kilpauk	745	2,812	3,557	157	760	50	240	105	384	...	90
25	Chetpet	1,463	1,213	2,676	136	532	45	71	78	387	...	45
26	Nungambakkam (South)	461	1,631	2,092	90	434	50	80	50	394	...	38
27	Thousandlights (West)	836	1,686	2,522	104	347	52	124	52	771	...	109
28	Pudupakkam	990	5,923	6,913	146	1,275	52	274	150	430	2	111
29	Ashok Vihar	1,551	2,690	4,241	89	742	46	217	134	844	...	145
30	Park Town	716	567	1,283	67	192	50	96	49	218	...	13
31	Chintadripet	748	2,839	3,587	98	1,132	52	157	52	358	...	140
32	Pudupet	600	1,624	2,224	94	476	52	96	52	484	...	49
33	Zam Bazaar	820	2,302	3,122	104	1,578	52	221	52	661	2	38
34	Mirsaibpet	1,017	3,001	4,018	104	658	52	176	52	425	...	54
35	Durgahpuram	883	2,547	3,430	104	682	52	230	52	726	1	120
36	Teynampet	653	1,826	2,479	93	832	49	101	50	334	...	20
37	Karniswarapuram	948	3,346	4,294	104	929	52	214	52	589	...	266
38	Raja Annamalaipuram	1,050	2,576	3,626	105	594	52	209	52	658	1	225
39	Adayar	689	1,712	2,401	156	430	49	275	118	1,002	1	70
40	Vadapalani	969	4,945	5,914	148	1,649	49	396	96	590	2	863
41	Thiagaroyanagar	486	2,163	2,649	101	445	51	130	51	398	1	16
42	Satyamurthinagar	600	1,679	2,279	100	424	52	131	52	271	...	4
43	Saidapet (North)	556	1,559	2,115	94	773	36	70	44	310	...	15
44	Periapet	1,426	4,312	5,738	151	1,330	52	382	124	1,489	2	447
45	Guindy	334	737	1,071	93	241	47	196	132	747	...	14
Total		40,477	1,51,975	1,92,452	5,099	37,482	2,175	10,120	3,256	21,635	30	7,449

